

THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

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Improvement of the Soil.

Treatment of Sandy Soil—Use of Clay, &c.

EDS. CULTIVATOR—Circumstances have particularly attracted my attention to the nature and cultivation of sandy soils. I am satisfied by observation and experience, that a very false and mistaken system of tillage has been adopted upon these lands, and that there prevails an inadequate appreciation of their value and productiveness. The preliminary processes, by which they are in popular language subdued, and adapted to profitable culture, are somewhat tedious and expensive.

The leaves, foliage, and other deciduous particles, that fall from the pine trees which ordinarily occupy these lands in their primitive state, must be first destroyed. These substances are most noxious and destructive to vegetation, and scarcely no useful plant can be cultivated, while they exist to any extent upon the surface of the soil. This work, should be, and usually is effectually accomplished by the burning, which succeeds the first clearing. A fire that burns over the whole surface successfully purges the soil from this obnoxious influence. Where the earth by this process is well prepared for the drag, a valuable crop of rye or oats may be obtained, which will prove an ample remuneration for the subsequent labor and expenses to which I shall refer. If the burning has not effected this result, the farmer must be contented with light crops, and scanty and coarse grasses, until the decay of the roots and stumps, (which is a rapid process with the pines,) enables him to accomplish the object by the plow and hoe. The first clearing is succeeded by a growth of sweet fern, brakes and other worthless plants, by which every valuable vegetable is choked, and ultimately extirpated. This vegetation, we term the sour growth. It is only eradicated by repeated, close and careful plowing and dragging, or what is more efficient still, by the thorough use of the hoe. Sheep and cattle pastured upon the land, have no effect upon this noxious vegetation. They all reject it, and refuse to browse it. Any effort to successfully cultivate with grain or grass, the soil in its presence will lead to idle expense and incur certain disappointment. Until freed from those substances, the land cannot even advantageously be laid down to pasture. Two, and often three efficient plowings are necessary to produce this result. It is not requisite, however, that the plowings should occupy an equal number of years. Repeated use of the plow, is often highly advantageous in the same season.

Nor is the labor and expense of these plowings without beneficial consequence in other respects. The process, if performed at the proper period, at each recurrence, turns under and covers a rank growth of green and juicy vegetable matter, which rapidly decaying, yields to the soil a most fertilising manure. This vegetable substance, when decomposed, becomes incorporated with the sand, imparting new and improved qua-

lities to the land, and forming by the combination, a new element of soil. A farmer, ignorant of these facts, or disregarding them, may be impatient, under this protracted system, and in prematurely forcing the land, often incurs a loss of his toil and money, and will impute to the soil a failure chargeable to his own improvidence.

When, by these operations, the land is sufficiently ameliorated and relieved from this "sourness," it should be well seeded principally with clover. In this condition, it is formed for successful tillage. White clover is indigenous to the soil, and springing up spontaneously, yields a rich and beautiful profusion of herbage. A heavy and vigorous turf is thus soon formed. The land is then adapted to the profitable culture of almost every crop. A tenacious sward, plowed under, gives to the soil a firmness and consistency, that adapts it to the application of manures, and renders their effect more powerful and permanent. The decaying turf constitutes a basis, upon which such appliances as plaster, ashes and lime will vigorously act, and produce large crops of corn, potatoes, or the smaller grains.

My observation has confirmed the opinion, that, by a judicious rotation in culture, sandy soils may be continued without the application of manures, in a constantly progressive state of improvement. Instead of exhausting, tillage tends to its amelioration. The most successful system in my experience is this. Turn under a clover ley, plant upon it, with plaster, after a sufficient harrowing, but without disturbing the sward. The second year, carefully seed with clover and herd grass. Let it remain for two or three seasons in grass and then again pursue the same practice. If permitted to remain too long in grass, the land becomes gradually infested with a wild and worthless vegetation.

I will briefly suggest some of the reasons upon which I found my estimate of the advantages of cultivating sandy soils. They may be tilled with an immense saving of labor and expense. A team can plow in the same time, two acres, with less labor and wear, than one acre of stiff or hard land. An equal economy of time and toil, will be observed in every subsequent process, in the tillage of the crop. This is the case when the work is performed by manual labor. The difference in the relative expense of cultivation, is greatly enhanced in favor of the sandy soil, by the use of labor saving machines. In forming a judgment on this subject, this fact should be regarded as of most prominent consequence, for these lands are admirably adapted to the use of the corn planter, horse hoe, and cultivator. Grain grown upon sandy soil, is proverbially well ripened and heavy in weight. Potatoes raised on it, are uniformly, I believe, exempt from disease, and always of the choicest quality. It is less affected by drouth than many other varieties of land. I impute this fact to its being peculiarly pervious to moisture, from its loose and detached particles, which renders it more readily affected by the slight showers and copious dews of summer.

It is well calculated for pasturage. The delicate white clover, which I have described as a natural product of this land, affords the richest and most nutritious pasture. Sheep will thrive and grow fat on a sandy pasture, where a casual observer would doubt that they could find the most scanty sustenance. Sand is ready for cultivation as soon as the frost is out, and crops are growing upon it, when heavier lands still lie unprepared for the plow.

Permit me for a few moments, to occupy your columns in exhibiting a fact or two, which illustrates the advantage of combining clay with sand, and throw, I think, some light on the great question of the nature and causes of the potato rot. I planted in the year 1847, a ten acre field of sandy land to corn, with no application of manure except plaster and ashes, in the hill and upon the plant. Nearly the whole field yielded me a rich harvest. About twenty years before, my father had spread forty loads of clay on three-fourths of an acre, in no respect superior to the remainder of the lot. Upon that three-quarters of an acre, from the first appearance of the shoots to the harvest, the difference in the aspect of the crops was so marked and peculiar, as to attract universal observation, and constant inquiry as to the cause. The plants throughout the season, presented a higher and better color, a more luxuriant growth, and in the end, a much heavier yield, than any other section of the lot. The strength of any other manure, would long before have been exhausted, or its effect lost by leeching or evaporation. The clay combining with the sand, had constituted a new and distinct soil, improved over both its components in fertility, and permanent in its character.

On one side of the field of corn I planted two rows of potatoes, perhaps a hundred rods in length. When dug, they proved sound and free from disease, except across the piece where the clay had been deposited. Here the rot exhibited itself, and had seriously affected the crop. The seed was precisely similar, and the earth in every particular the same, except as it had been changed or modified by the incorporation of the clay with the sand. Can philosophy form any other deduction from these facts, than the conclusion of common sense, that the clay caused the development of the disease in that portion of the crop. It may have raised the development, without being itself the origin of the disease. W. C. W. *Port Kent, Jan. 1849.*

NOTE.—Although potatoes have generally suffered less from the rot on sandy soils, than on those of tenacious character, they have not been wholly exempt in the former case. As to the quality of potatoes produced on sandy soil, we think they are not usually as good as those grown on a friable loam. Eds.

Fertilising Properties of Salt.

EDS. CULTIVATOR—There is a discrepancy of opinion among those who have used this article as a manure. While some are loud in its praise, and attribute to it astonishing effects, others are equally vehement in its denunciation—asserting that it is incapable of producing any benefit. From these contradictory accounts, we may reasonably conclude that, under some circumstances, it acts beneficially, and under others does not. But *what are these circumstances?* This is an important question, and one which I shall not attempt to answer fully—my chief object being to advance a few remarks which may tend to call attention to the subject, and lead to further investigation.

One of the circumstances under which salt has been found to be productive of no benefit is, when it has been used on land situated near the sea. This is easily accounted for when we consider that the vapor which rises from the salt water is impregnated with this sub-

stance, and wafted over the land until it becomes condensed, when it is precipitated to the earth in the form of rain. Thus, land bordering on the sea, is kept well supplied with salt, so that the application of an additional quantity would not be likely to produce any beneficial effect.

But *why do its effects vary when it is used on land lying beyond the reach of sea vapor?* I suppose the principal reason is, because some lands naturally contain more of this ingredient (or its constituents) than others. We may therefore always expect most advantage from the use of salt on such soils as have not received a very bountiful supply from the hand of nature, or such as have been exhausted of the constituents of this article by the continued cultivation of such crops as require a large amount of them.

As regards the manner in which salt acts in promoting the growth of any vegetable, I hardly think we are warranted in giving it credit for so many modes of doing good as some have imputed to it. One writer says, "its benefits are as follows: 1st. When used in small quantities it promotes putrefaction. 2d. By destroying grubs and weeds. 3d. As a constituent or direct food. 4th. As a stimulant to the absorbent vessels. 5th. By preventing injury from sudden transitions of temperature. 6th. By keeping the soil moist." The third reason here given appears to me to be the most important one. True, salt may "destroy grubs and weeds," but in order to obtain this advantage, would it not be necessary to apply so large a quantity as to be ruinous to any crop we might wish to raise? In this case, the remedy would be worse than the disease. As regards its "promoting putrefaction,"—"stimulating the absorbent vessels"—"preventing injury from sudden transitions," and "keeping the soil moist," these are points which need better evidence than mere assertion.

That salt may be of much advantage by furnishing food to plants, appears very probable when we consider that all our common cultivated plants require for their nourishment, a portion of its constituents. These constituents are *sodium* and *chlorine*. Although these ingredients form but a small part of the bulk of any vegetable, yet they are absolutely necessary, and if the soil does not contain them, our crops cannot thrive, although all other circumstances are favorable. Therefore, when our land has become exhausted of these ingredients, and possesses all other requisites for sustaining a luxuriant growth, a wonderful effect may be expected from the application of salt.

Another circumstance which tends to confirm the position here assumed, (that its chief benefit consists in supplying food,) is, that it has been found by experiment to act most advantageously on such plants as contain, according to accurate analysis, the largest amount of one or both of these constituents (sodium and chlorine.)

One of my neighbors says he has frequently tried the experiment of rolling his potatoes in fine salt before planting them, (having first moistened them with water,) and has invariably found those thus treated to grow more vigorously than those not salted; the vines of the former, he says, are of a darker color, and continue green and growing much longer than the latter, and the yield is always in favor of those to which the salt was applied. He supposes salt to be a certain preventive of *rot*. I would like to know whether any one who has applied this article to his potato crop, has had his potatoes injured or destroyed by the mysterious disease.* I have read in agricultural journals several

* There have been numerous accounts, several of which have been published in *The Cultivator*, of salt having been applied in various forms to the potato crop, with no effect to prevent the rot or "disease." In respect to the effects of salt as a manure, statements are contradictory, and more accurate experiments are necessary. Eds.

accounts mentioning that potatoes to which salt had been applied, had escaped the disease, while those by the side of them which had received no salt had been destroyed. I have never made any experiments with this article, though I design doing so the coming season.

The best and safest way of applying salt, I suppose to be to scatter it over the ground broadcast after plowing and before harrowing, at the rate of from three to five bushels per acre. Some recommend double this quantity. The experiment is easily made, and the expense of trying it on a small scale is trifling. I hope the merits of this fertilizer may be more fully tested. If the application of three or four bushels to the acre does no good, I think we can safely say of it, as of homœopathic medicine—it will do no harm.

Should any one who reads this article, be capable of giving further information on this subject from his own observation or experience, I hope he will do so. J. M'KINSTRY. *Greenport, Columbia Co., N Y, March 15, 1849.*

How to make Manure.

EDS. CULTIVATOR—Perhaps there is no branch of agriculture more open to improvement than that of making and applying manures. Although we occasionally find a farmer who thinks he knows enough without learning anything new, yet the best farmers,—those who have made the most improvement,—tell us they have but just begun to learn. They regard manure-making as an *art* to be *studied*; and are ever ready to learn by reading, by observation, and by experiment.

There is no doubt that farmers in Vermont, will find it for their interest to turn their attention, more generally, to manure-making;—for, whatever may be said of the fertility of other regions, there can be no question but our soil needs manure, and must have manure, or become barren and worthless, as much of it is fast becoming so already.

But the farmer sometimes objects, that it costs so much to make manure, he cannot afford it. This, we think, a mistake, especially where the farmer owns the land he cultivates. The art of manure-making, like the art of house-keeping, consists very much in saving; and there can be no doubt but a large share of the farmers, either for want of information or proper care, suffer one-half their manure to waste. A few months since, we saw, in a neighbor's barn-yard, some half-dozen heaps of green manure, which the owner said he was going to spread over his yard, that it might lie through the summer and *mull*. He was of the opinion that manure was best after it was thoroughly *mulled*. About as good economy as it would be to leave ashes exposed to the weather for a year, and then expect to make soap or potash from them.

Many farmers, if they wished to have as little manure, and that little as weak as possible, could not manage their yards better for that purpose, than they now do. The urine, which is of about the same value as the solid manure, is oftentimes nearly all wasted, and the droppings of the cattle are left scattered about, exposed to the weather, till two loads have hardly the strength of one, and are as much diminished in quantity as in quality.

The barn-yard is often so constructed that the water runs out of it, and in times of rain, perhaps through it, into the road, or some stream near by; and that stream, loaded with juices from the barn-yard, is suffered to run off, when it might, by plowing a few ditches, be turned over the mowings. In one instance, we knew a man, when building a wall on some land he had bought, fill up the places where the water had been accustomed to run through, because he did not want the trouble of ditches, and of having the dirt washed on to his grass. The trouble of ditches and dirt he saved,

and, also, the trouble of cutting more than about half the former crop of grass. While such a system of manure-making, or rather *manure wasting* is so common, is it not quite obvious that much may be done by way of improvement, with very little expense?

1. It should be constantly borne in mind, that the most valuable part of the manure, in the farmer's barn-yard, consists of salts that are liable to be washed away by the rains, and of gases, that will evaporate if exposed to the atmosphere; consequently, what manure the farmer has, not designed for immediate use, should be kept heaped up, and if possible, sheltered, so as to protect it from the action of the rains and sun. Is there not a great deal lost by neglecting to do this?

2. If farmers have manure they wish to ferment or *mull*, they can cover it with muck, loam, or something of the kind, so that the gases that escape in fermentation, may not be lost in the atmosphere. And the more surface the manure occupies, the more important it is that it should have a covering or something mixed with it, to prevent the escape of the ammonia.

3. Farmers may save a great deal by fixing their yards, so that the wash will not all run out. Mr. A. is greatly averse to having his yard wet, and to prevent this, he has the middle the highest, so that all the wash, and all the rain that falls into it, run into a little brook just below, and thence, on to his neighbor B.'s mowing, who saves all the wash he can get, by having ditches in all directions. Mr. A. has a clean, dry yard, and can go through it without dirtying his boots; but his neighbor B., who has his yard constructed differently—like a basin, “right side up with care,”—makes more manure, and raises much heavier crops. Cannot farmers attend to this without much expense?

4. A great deal may be saved by taking care of the cow-yard in the summer. This should always be covered with something to absorb the urine, and the droppings should either be covered up where they are left, with muck or loam kept in heaps about the yard, or be thrown into a heap with the shovel, and then covered, to prevent drying up. It is no exaggeration to say, that when the cow-yard is left without any care, two-thirds of the manure is wasted. Farmers, is not this too much to lose?

5. Much may often be done in turning the wash of roads and buildings upon the mow-lands, by having ditches wherever there is a chance for any wash. Frequently, a few hours work in plowing ditches, would make tons of hay; and with but trifling expense, the whole crop on many acres might be doubled; yet the owners, while they complain of “light crops,” and oftentimes are compelled to buy hay to winter out their stock, say they cannot afford to make manure!

6. We not unfrequently see all the soap-suds, and wash from the house thrown into the door-yard, making a mud-hole which breeds swarms of flies, and fills the air with its pestiferous effluvia. In such cases, farmers might profitably save their soap-suds for manure, and as for the *odor*, that of a fragrant bed of flowers would be quite as *agreeable*, as well as more healthy and profitable.

The importance of saving the wash from the house can hardly be too highly estimated. A few years since, a British Agricultural Society, offered a premium for the best method of making compost manure. The successful applicant obtained his method of an Irishman. He examined every potato patch he could find; and in one large field, cultivated by many different families, he found one patch of very luxuriant growth, and more promising than any other. He inquired of the owner whether he did not keep more stock than a cow and pig, but found to his surprise that he kept neither cow nor pig. He had a pit dug, where he threw all the wash from the house, mixing it with straw, turf, scrap-

ings from the road, and whatever he could get that would work into manure. This pit, frequently emptied and re-filled, constituted a little manure factory that produced the best potatoes in Ireland. Farmers, is not here an opportunity for making much manure, with materials that have for a long time been thrown away?

7. Of all sources of manure-making, hogs are the most profitable. Those who have barn-cellars for their hogs to work in, can turn their labor to the best account, but those who have not, may, without expense, have a small yard attached to the hog-pen, and every few days throw in muck, loam, turf, leaves, weeds, or anything of the kind that may be at hand. The hog-yard, to be profitable, should be frequently attended to; when considerably filled, it should be emptied and supplied with new materials. Hogs, if rightly managed, would never be censured for laziness. They have unjustly been accused of this, simply because, like mankind, they will not work, unless they can work in their own way. To be sure, when they have "accumulated" a good deal, they like to "retire from business," and become "gentlemen of leisure;" but while in the "vigor of life," they will do a good deal towards "a living," if provided with the means. As they are "fond of new things," they should frequently be supplied with new materials to work upon; and if this is faithfully done, farmers may rest assured, their hogs will dig more money for them than many of the *California gold-diggers* will ever realise. JOHN TUFTS. *Wardsboro', Vt., Jan., 1849.*

Sketches of Farms.

Further Sketches of Mr. Phinney's Farming.

EDITORS OF THE CULTIVATOR.—In the April and May Nos. of *The Cultivator* for 1848, I gave an account of a visit to Mr. PHINNEY's farm, at Lexington, Mass., in January previous. In September last, I had the opportunity of observing some of his fine crops,—the result of his mode of operations. And first,

THE ORCHARDS.—The trees in the Baldwin orchard, for productiveness, deep verdure, smoothness of bark, and fine shape and proportions, presented a very remarkable appearance. One could hardly conceive how the trees could possibly bear more fruit. Although many of the limbs were bent nearly to the ground, under the burden of apples, yet not a prop was seen in the orchard,—the horizontal training of the limbs, of which I have before spoken, effectually preventing them from splitting off. Mr. Phinney was expecting to harvest nearly 1000 barrels of the Baldwin apple from this orchard, which he intended to ship for Liverpool, on his own account. The fruit for market is carefully picked from the trees by hand, and immediately put into the barrels, which are stored in a dry cool cellar, built for the purpose, in the orchard, where they remain until a sale is effected. No windfalls are ever suffered to go into the barrels. Hence, his apples command a ready sale, and a much higher price than ordinary apples, put up with less faithfulness and care.

Mr. Phinney formerly had a great many varieties of fruit in this orchard; but quickly perceiving that the Baldwin apple found here by far the most propitious soil, he turned his attention almost exclusively to the cultivation of that variety. He finds that the great point to be considered, *pecuniarily*, in fruit-raising, is,—Of the most approved varieties, which will flourish in greatest perfection, in a given location and soil?—The young sweet-apple orchard is coming into bearing finely, and is a great pet with Mr. Phinney. Here, too, it is found that one or two varieties are worth all the rest for productiveness and profit. The orchard

has an eastern slope, the limbs are trained in strict accordance with Mr. Phinney's notions, and the trees are very thrifty and vigorous.

CULTIVATION OF CARROTS.—In front of the new house, I noticed a remarkable field of carrots of one acre. The cultivation of the ground had been preparatory to laying it down as a level and permanent grass plat. Twenty loads of compost were spread upon the sward last spring, and turned under to the depth of six inches, and the subsoil plow following in the furrow, loosened the earth ten inches deeper. Twenty loads of compost were then spread on top of the sod furrows, two or three inches of the surface made perfectly fine and mellow with the harrow, and early in June, the seed was sown with a machine, in rows two feet apart. At the time of my visit, the carrots had made most vigorous growth, the tops so completely covering the ground that the eye could not at all distinguish the rows. Knowing well the fact that this crop makes its principal growth of root after the twentieth of September, I will not state the probable amount of bushels to be harvested from this field, as it might sound like a large story. Suffice it to say, that any reasonable man should be satisfied with the like of it. The decomposing sod, underneath, was in time for the carrots; and together with the manure turned under, perfectly sustained the crop, in the latter part of its growth; it also kept the land light and mellow, permitting the roots to penetrate and range about at pleasure. The loosened subsoil invited them still farther below. The white carrot was sown upon this field. Making a good part of its growth above ground, it is the more readily harvested without disturbing the sod; and as Mr. Phinney intended the field for a lawn, he was anxious to preserve the surface level and smooth for receiving the grass-seed.

In my ignorance, I had always supposed, until last season, that old sward, as it is called, was the only suitable preparation for growing the carrot. I am now well convinced of my mistake. One of my neighbors last spring sowed a piece of green-sward land on the same day that I sowed a piece of strong fertile land. The seed for both fields was out of the same lot, and the land thoroughly prepared, in both cases. We frequently compared notes during the progress of our crops, in order to test the merits of a green sward ley for the carrot; and the result was, that my neighbor's crop yielded nearly a third more than mine, while his expense in hoeing and weeding, was one-half less. It seems surprising to me, that the carrot is not more universally raised by our farmers. It is a clean, pretty root to handle; as winter feed, nothing is more grateful to the taste, or promotive of the growth and thrift of cattle and horses; for milch cows, it exceeds any other mess-feed for producing sweet, yellow butter; and if the ground is properly chosen and prepared, it makes a very profitable return for the labor bestowed.

THE GRASS LANDS.—In my former notice of the reclaimed grass-lands, I omitted to speak of the importance of an open space, of 3 or 4 inches square, on the bottom of the drains. If stones of sufficient size are at hand to cover this channel, the rest of the filling may be of small stones, as the water will readily find its way into the open space below. The ten-acre piece of drainage, which I noticed in a former communication, proves a most judicious and profitable investment—the land having given fully three tons per acre, of excellent herd's-grass and red-top hay, the past season. The situation of the field is such as to receive all the surface wash of many acres of highly cultivated land, gently descending towards it, on either side,—the benefits of which are now fully secured and turned to the best account,—which, with an occasional top-dressing of compost manure, will undoubtedly keep the land in product

tive mowing, for an indefinite period of time. Twenty acres of upland mowing, adjoining this field, have given an equally large amount of hay; and the crop, the past season, on both fields, is estimated at 90 tons.

The process of underdraining and bringing into successful cultivation, 20 acres of bog meadow, I have spoken of before. This meadow is now very productive in grass; and judging from the luxuriant appearance of the aftermath, the quality of the hay is good. As the cultivation progresses in age, the meadow becomes more firm and easily passable with loaded teams, and the quality of the produce more valuable. Mr. Phinney has raised on this land, 75 bushels of corn, 500 bushels of potatoes, or from 4 to 5 tons of hay, at a first and second cutting, to the acre; and this, in contrast with the fact that, twenty years ago, it was a perfect quagmire, would seem to show the merits and value of this kind of farming.

As the orchards now occupy so large a portion of the farm, and being kept in constant tillage, afford about all the proportion of hoed crops that is desirable or necessary to raise, Mr. Phinney wishes to keep as much as possible of his remaining tillage-land in productive mowing, in order to furnish hay sufficient for the wintering of his numerous stock of cattle. Consequently, the above-named grass-fields will be permanently kept so, by frequent top-dressings of well-rotted manure; and should the land at any time cease to yield at least 2 tons of hay to the acre, or should the quality of the produce become inferior, it will be turned smoothly over, manured and re-seeded to grass, without other cultivation.

In addition to the large amount of hay which the farm cuts, it also supports 70 head of cattle, through the summer, with green feed, or by soiling them in the barns. All the corn necessary for home consumption is produced on the farm, as well as any quantity of carrots and ruta bagas for the winter-feed of the stock, and a great variety of green vegetables for Boston market.

MANURE.—These results have been realised in twenty-five years, by agricultural skill, and a diligent and strict husbandry of every available means, for making manure. The peat from the bog meadow has been analysed by Dr. Jackson, and found to contain 95 parts in 100 of vegetable matter. But this, in its cold and raw state, is unavailable, because its valuable properties are locked up in acids, hurtful to vegetation. It has therefore been placed behind the cattle, in their stalls, and in the hog-pens and cellars, as an absorbent of the liquid and gaseous portions of the manure, which in turn, expel the acidity from the mud,—thus rendering it a principal and valuable resource in the improvement of the farm. As much as two parts of peat, are incorporated with one part of manure; and Mr. Phinney does not hesitate to pronounce it fully equal in its effects upon all the crops in the rotation, to an equal amount of ordinary farm-yard manure.

Every animal has an opportunity of contributing its full share in the formation of a circulating medium for the farm, by depositing its *manure-treasures* in a *Farm Bank*, well guarded from leakages, or the stealthy pilferings of the atmosphere,—often so dexterously managed, as to rob the unsuspecting and unguarded farmer of un-told treasures, even in broad day-light. It has never been thought advisable to extend, or *sprinkle* the business of this bank over a large territory, exposing it to the risk of heavy losses, both of principal and interest, but large and responsible loans have been made, nearer home. Its redemptions have, therefore, been easily met, by the proceeds of its bills receivable,—the produce sold. The dividends have been large and regular, with “a wide margin” left, for expenses and contingencies.

THE STOCK.—The imported stock of the Mass. State

Society, which is kept on this farm, was looking finely at the time of my visit. All the stock of the farm appeared to be in high health, under the soiling system of feeding; the cows were giving a fine quantity of milk. They have twenty acres of pasture to range upon for exercise and water, a few hours each day. The young animals of the Ayrshire and Devonshire breeds, had made a rapid and vigorous growth in the interval of my visits. These breeds of cattle are highly esteemed by the farmers of Massachusetts, for their hardiness and adaptation to the climate and soil of that State. The introduction and dissemination of this stock, by the State Society, is a wise and praiseworthy movement; and it will be productive of more real wealth, to the farming interest of the commonwealth, than any other appropriation of money the Society has yet made.

The task of redeeming this farm from its worn-out condition, and of removing the stones and other obstacles to good cultivation would have looked too formidable for ordinary farmers to attempt. Not so with Mr. Phinney. He was satisfied that its close vicinity to a large market, and the payments which a naturally willing soil would be encouraged to make on behalf of a generous cultivation, after the obstructions were removed, warranted him in the undertaking. At the end of twenty-five years, he can survey his labors, and the results produced by them, with much pride and pleasure. His grateful soil now gives a large and sure reward for the enterprise, patient industry, and liberal investment, heretofore bestowed.

I apprehend that the contrast between the results of a judicious system of high farming and the ordinary scrub and skin system which too commonly prevails, will always be in favor of the former, in a run of years. Too many of our farmers are opposed to any and all changes of cultivation which look toward the improvement of a worn-out soil, on the ground that *it costs too much*. Trained up in old customs of husbandry,—which might possibly do for a time, while the land was new, and the population thin, they still adhere to those customs, under circumstances entirely different from those which gave them origin. When the undeniable superiority of the different modes of culture, better adapted to *present* circumstances, is held up to view, even in the light of *dollars and cents*, their adoption is still regarded with much suspicion and contempt. Controlled by this blind prejudice, how often do we see them toil on through life, in the old routine, their farms becoming still poorer, each year.

But happily, a spirit of improvement is abroad. Among quite a large class of the old stock farmers, a desire for information in different and better modes of culture, is rapidly obtaining. A large, intelligent and enterprising class have gone to farming, within a few years, from other business, who,—dissatisfied with old and improvident methods,—at once inquire into the principles of an enlightened husbandry, with minds free from traditional prejudices. These two classes are scattered along in every community, and we see that their example is exerting a salutary influence upon our agriculture.

The improvements in farming we now observe, may be principally ascribed to a wide diffusion of the desired information, through the medium of *Agricultural Journals*. The talented Liebig justly remarks that—“There is no other profession which can be compared in importance with agriculture, for to it belongs the production of food for man and animals; on it depends the welfare and development of the whole human species, the riches of states and all commerce. There is no other profession in which the application of correct principle is productive of more beneficial effects, or is of greater and more decided influence.” Great and good influences have already been largely imparted, in combatting and

meliorating ancient customs, while the mass to be influenced, were almost impenetrably be-clouded by prejudices in favor of those customs. Now, there is a great accession of enlightened and *willing* minds to operate upon. You have then, Messrs. Editors, every encouragement to persevere in your enterprising and noble efforts to disseminate correct and improved principles and methods of husbandry, with the consciousness that you are conferring not only individual, but *national* benefits. F. HOLBROOK. Brattleboro', Vt., Feb. 7, 1849.

History of Kentucky Cattle.

Letter from Dr. Martin.

The following is the letter to which we alluded in our March No., embracing the questions we addressed to Mr. SANDERS, and Dr. MARTIN's reply to the same. The letter was originally sent to Mr. S., and was forwarded by him to us. EDS.

DEAR SIR—Your letter of the 25th ult. is just received, and I will try to answer your inquiries. Your first question is,

"1st. What breed, cross, or variety [of cattle] has been found most profitable in your region, for beef; and what for the dairy?"

The improved Short Horns and their crosses are most profitable for beef. They are of large size and fatten easily at any age, so as to come early to maturity, and they carry a large portion of their flesh upon the best parts, and their beef is of an excellent quality. They pay better for food consumed than any other cattle that I have fattened or grazed.

In regard to the milking qualities of the improved Short Horns, there appears to be much diversity of opinion. Some contending that they are the best milkers we have ever had in the country, and others that they are worthless. The truth is that some tribes of Short Horns are remarkable for the quantity of milk they give, and other tribes are equally so for their *small* yield.

I purchased two cows at Col. Powel's sale in 1836. One of them, a cow of the Daisy tribe, was a steady milker, giving from twenty-eight to thirty-two quarts of milk daily. The other was scarcely able to raise her calf. And the qualities of each have been transmitted to their descendants, for several generations. The cows that I imported from England were all fine milkers, and so are their descendants. The cows of those milking tribes are generally thin whilst giving milk, but fatten very quickly when dry. The steers of the milking tribes are equal and generally superior as grazier's stock to the others. Mine have been superior, which I attribute to their having been better nourished by their mothers.

"2d. Which of the breeds imported in 1817, the Long Horns, or Short Horns, have succeeded best?"

There was a close contest for many years between the Long Horns, Short Horns, and Herefords. Each had their advocates, and each produced a stock that was a great improvement as grazing stock, upon the native and Patton stock, (as the old unimproved Short Horns introduced by Mr. Patton, were called.) This contest was kept up until about 1830, when the advocates of the Short Horns became most numerous. The Long Horns and Herefords were gradually bred to Short Horn bulls, until the pure breed of the two former are nearly extinct.

"3d. How do the Long Horns of that importation, [1817] or their descendants, compare with the Patton Long Horns?"

Mr. Patton was one of the original importers in 1783 of two breeds of cattle. They were then called the *milk* and *beef* breed. The milk breed were Short Horns.

The beef breed had longer horns; but I have always supposed they were the unimproved Herefords.* I am not aware that there ever was brought to Kentucky, any of the full bred beef breeds, so that my opinion that they were Herefords is based upon the appearance of the half bloods which I have seen. Mr. Patton brought to Kentucky the full bred milk breed and half blood cows of the beef breed. A son of Mr. Patton brought to Kentucky a half blood bull of the beef breed, and Mr. Smith brought also a bull, which was half beef and half milk breed, called *Buzzard*. Mr. Patton's Short Horns were very fine animals. They were fine boned, heavy fleshed, and came early to maturity, and fattened kindly, and were extraordinary milkers. They were much larger than cattle that we had in the state previously. Mr. Patton brought only one cow of this breed, and she had no female descendants. The produce of these fine cattle was very much injured by breeding them to bulls which were descendants of the beef breed, such as Inskeep's *Brindle*, and Smith's *Buzzard*. These cattle produced a large, coarse, big-jointed stock, that came slowly to maturity, difficult to fatten, but when fully grown were of enormous dimensions.

This was the state of things in 1817, when your importation of Short Horns and Long Horns was made. I remember, well, examining the Long Horn bull (*Rising Sun*) soon after Messrs. Cunningham & Co. bought him, and I then thought him the finest animal of the ox kind I had ever seen. His stock was very fine—vastly superior to the coarse stock above described. I sold a cow, (got by *Rising Sun*), to a butcher who paid me for a thousand pounds, nett meat—a very unusual size for a cow in those days.

"4th. How do the Short Horns, imported in 1817, or their descendants, compare with those that have since been introduced, including those of the Ohio Importing Company?"

The Short Horns of 1817 were fine boned, heavy fleshed animals, that came early to maturity, and fattened much easier than the Patton stock, (especially after the latter had been mixed with the beef breed.) They fattened mostly on the outside, so that they always showed their fat to the best advantage. Their flesh was rather inclined to hardness, which was a considerable drawback upon their excellence.

The *best* of the improved Short Horns, introduced within the last twenty years, have all the good qualities that the stock of 1817 had, and they have these additional advantages:—Their flesh is soft, [tender] and they throw a portion of their fat in among the lean,

* The terms "beef breed" and "milk breed," seem to have been used to designate varieties of cattle which were respectively distinguished for milk and beef—the particular breeds to which they belonged, not being generally known at that day. The "Patton stock" appears to have been of two different breeds, both of which were obtained by Matthew Patton, from (or through) Mr. Gough, of Maryland, who is said to have been "an importer of British cattle." Those first obtained, are described by Benjamin Harrison, a grandson of Mr. Patton, as long-horns—the cows, he says, had "very long horns." In 1795, several years after the cattle just named had been obtained, Mr. Patton, it is said, "procured from the before-mentioned Gough, a bull called *Mrs* and heifer called *Venus*" [Venus?]. These are represented as "full blood English cattle," and appear to have been Short Horns. [See Judge Beatty's work on "Practical Agriculture," pp. 33, 34—also, Mr. Harrison's account in the Franklin (Ky.) Farmer," vol. ii. p. 196.] The Mr. Gough alluded to was probably an importer of various breeds of "British cattle." In Parkinson's "Treatise on Live Stock," the author of which spent several years in America shortly after the close of the Revolutionary war, Mr. Gough is spoken of as having imported "cattle of the Yorkshire kind." It is added—"they were of the large, coarse sort," and that "they answered very indifferently in America," the poor quality of their flesh rendering them disliked by the butchers. [See "Parkinson on Live Stock," vol. i. p. 108.] We have seen what was called "Patton stock" in the neighborhood of Chillicothe, (O.) and also in Kentucky. They appeared to be a mixture of long horns and short horns, and (with due deference to Dr. Martin) we did not discover in them any points denoting Hereford blood. EDS.

so as to marble it. The beef is of a better quality and they take on fat much easier. They are as forward at three years old, as the stock of 1817 were at four, or as the Patton stock were at six. But the later importations have had greatly the advantage of the stock of 1817, in having the improvement made by the latter to start with. Some of the finest animals I have ever seen fattened, were a mixture of the two breeds. I think there were some of the importation of 1817 that did not have that hardness of flesh, but they soon became so mixed in their descendants that it was a general characteristic.

"5th. If you were now to choose a stock for general grazing purposes, in your state, what breed or breeds would you select from?"

I should have no hesitation in preferring the improved Short Horns, to every other kind of stock that I have ever seen, for grazing in this region of country.

"6th. Give as full a description as you can of the qualities of each breed, as they have been developed with you, embracing remarks on the comparative size, form, activity, hardness, and tendency to disease of the different breeds."

The original breed of cattle in Kentucky, strongly resembled the old unimproved Devonshire cattle. They were small, thin and difficult to fatten—cows weighing when fat, from three to four hundred pounds. These cows were good milkers, giving a moderate quantity of rich milk. I do not know that they were subject to any other disease but the hollow horn—a disease brought on by poor keep in the winter, so that the pith of the horn is frozen. It was cured by boring a hole in the horn.

The introduction of the Patton stock in 1785 and subsequently, made a considerable improvement in these cattle. Cows of the Patton cross, would weigh when fat from 600 to 700. There was such a general disposition to increase the size, that the coarse-jointed large-boned animals, were selected and saved as breeders, generally, from 1785 to 1817, and the consequence was at the latter period, the Patton stock, (as all these cattle were called,) were very coarse. The size of some of these cattle was enormous; but they did not weigh, nett, near equal to their size. The graziers at that period did not like to attempt to fatten cattle until they were four years old.

The importation of 1817, improved the coarse cattle very much, increasing their disposition to fatten. They came earlier to maturity, were gentler, better disposed, and had much less offal. Whatever reputation the Short Horns acquired in Kentucky, prior to 1830, was owing to this importation of Short Horns, and they had great reputation.

The improved Short Horns introduced within the last twenty years, have been a great improvement upon those imported in 1817, and those of Mr. James Prentice, of Lexington, in 1818. At the last cattle show that we had in Winchester, I showed a three year old steer, a mixture of the stock of 1817 and the improved Short Horns since introduced; and the judges put his weight at 750 lbs. Shortly after the fair, I sold this steer to Mr. Brinegar, who took him to New Orleans, and when butchered, he weighed, nett meat, 1242 lbs. I mention this circumstance to show how much more weight is contained in the same bulk; for if this steer had been of the Patton stock, his bulk would have given about the weight the judges laid him at. A few months before, I had sold to a butcher in Lexington, a steer two years and eight months old, that weighed 1025 lbs. I sold a heifer six years old to B. Roberts, that weighed when driven to Cincinnati 1487 pounds. Last year I sold to Mr. Horn, a five year old heifer that weighed 1116 pounds. Both of these were mixtures of the stock of 1817 and later im-

portations, and the last was uncommonly small for her weight. I regret that this last was not weighed before she was slaughtered, that I might know the difference between her gross and nett weight. However, I can give you the gross and nett weight of a four year old steer sold to the same gentleman. His gross weight was 2000, and his nett weight 1280 lbs. All these nett weights are exclusive of hide and inside tallow, taken out with entrails.

As it regards the diseases of all the above, they are very few, if bred from healthy stock. The most formidable disease of the improved Short Horns with me, has been the milk fever. I lost two of my imported cows, and one that I purchased at Col. Powell's sale, with it. It chiefly attacks cows that are fat, and have their calves in very warm weather—the attack being in a few days after calving. I never knew any but fine milkers to have it, and not until after they have had several calves. The udder becomes very large, hard and hot. They soon appear to lose the use of their hind legs so that they cannot stand. I have cured some by large bleeding and purging freely with Epsom salts. But prevention is still better, which may be generally accomplished by preventing the cows from having calves in warm weather. Healthy parents, generally produce healthy offspring in this region. You are aware that cattle in most of the adjoining states, are diseased, particularly in the liver. These cattle produce a sickly progeny, which seldom look as well as stock from more healthy parents. And I have noticed calves from them to be very subject to bowel complaints.

"7th. What breed of cattle is best for driving long distances?"

This question is more difficult for me to answer than any of the others, as I have very little experience in driving cattle; but I am told by persons who have been engaged in this business, that the Improved Short Horns, when fattened young, do not stand long journeys well. I should suppose from their make that the Herefords would be the best travellers. The Improved Short Horns make excellent oxen, as they never get overburdened with flesh while they have plenty of hard work to do. The breed is more gentle and docile than any others that we have had. Yours respectfully, SAM'L. D. MARTIN. Near Colbyville, Ky., Dec. 4, 1848.

Improved Implements

System, Order, and Economy.

Next in importance to the Plow, Harrow and Cultivator, the SEED SOWER may claim rank. Until within a few years, our grain and grass seeds have been sown broadcast by hand; hence we have rarely seen a field of wheat, but the irregularity of such sowing is visible soon after it vegetates. There are many incidents which cause this irregularity, such as the state of the wind, requiring either a high or a low cast; the equal and corresponding motion of the hand and foot; the length of step, &c.; from such like causes we often see fields of grain striped and streaked, or in waves, to a greater or less extent; here too thick, there too thin. The consequence of such carelessness is, the crop is not uniform in its growth and maturity, and less in product than if the seed had been well and equally distributed. To make this more evident, a careful calculating farmer ascertained by trial, that one foot square received of equally distributed grain, about 48 grains; Now ears of wheat may be said to average 65 grains, I have counted as high as 91—and as low as 24—but the above named person allowed in his estimate, that each grain produced only one ear, and every ear only 44 grains—the produce therefore, ought to be forty-

four fold—but the largest average produce is but 25 fold—then what becomes of the 19 fold lost? May it not be, that the greater portion is lost by *careless cultivation*, and a portion by insects?

To perform the duty of sowing grain, as it should be done, a man can sow twelve acres in a day—but taking one with another, as laborers present themselves to the farmer, very few know anything of this important duty; consequently, we have called in the aid of machinery, not only to distribute the seed equally and uniformly, but to economise too costly labor. This has been well accomplished by the introduction of Seymour's *Sowing Machine*, by means of which a man can sow 22 acres or more per day; and once for all, when I assert results as facts, without qualification, they are to be received as established by my own practice and experience, for several successive years. Thus, with a sowing machine, we can distribute either grain or grass seeds, with a precision which cannot be accomplished by hand; the quantity per acre may be graduated to a quart. The time gained in the operation, and the labor saved, is a profit to the cautious farmer which he carefully cherishes. Let us examine the matter by figures, and note the results.

The hire of a man and horse for two days, \$1 50
in which time he sowed 44 acres, at a cost of
about 4½ cents per acre.

If sowed by hand with *equal precision*, a man might sow twelve acres per day, requiring 3½ days, at \$1 per day, \$3 66
or at a cost of 8½ cents per acre—an allowance of the annual wear and tear of the machine may be made, and we have a saving of about one-half of the expense in favor of the machine. The gain of time is very valuable, and the gain in product is considerable, probably not less than five out of the nineteen fold lost to us, as shown in the experiment before stated. Here we have a field for economy in our farming practice but little known, and commending itself to the serious consideration and scrutiny of every farmer.

These seed sowers are not machines of recent invention; they have been known and used for many years in other countries, and to such perfection have they been carried in England, that a seed sower moving at the rate of two and a-half miles per hour, has covered 54 acres in ten hours; their great breadth however, would not be acceptable to the American farmer.

Among the most efficient of our farm machines is the *Hay rake*, worked by horse power; machines of this character were attempted in England about 65 years ago, but it was reserved for the American farmer to perfect the machine. This rake is so universally used, that it needs no remark to call the attention of the farmer to its economy. Within a few years, a horse rake with iron teeth has been introduced, deserving our attention, for raking our stubbles, and all such grain fields as are harvested without binding into sheaves—it works well also in the hay field, when the teeth are well tempered.

We have reason to know that from the earliest period of history, attempts were made to lessen the severe labors of harvesting grain, but the simple reaping hook, or sickle, maintained its supremacy at all times, and until within the last 70 or 80 years;—nor was it until about the year 1815 that any thing promising success was presented to the farmer. At that date, premiums of \$2500 were offered in England, for the production of effective *Reaping Machines*. The premium was not awarded, but credit is due to Mr. Smith, of Deanston, for a machine which, though it was approved and used for several years, was relinquished. In 1837, Mr. Smith improved his reaper, but it was too heavy and cumbersome for general use. The necessity for a reaping machine was felt so strongly, that the mechanical genius of

Great Britain was severely urged for its production, and machines were produced by Mr. Bell and Mr. Mann, at different periods, and each with promise of success. All however were complex and costly; of course not fitted or suitable to general use, and at this day, the sickle and the scythe are extensively used in harvesting in Europe. Here again, it was reserved for American ingenuity to secure success, and I believe the merit is due to Mr. Obed Hussey of Maryland, for the production of the *simplest* and most effective machine for reaping our grains, that has yet been offered. Other ingenious men have invented in this country, reaping machines which perform well, and have been made by one and the same power, to reap and to thresh the grain—these latter, however, are complex, and require a power for their use, beyond the wants or due economy of the New York farmer. The machine used by myself and many of my neighbors for several years, is the plain simple machine of Mr. Hussey, moved by a pair of horses; its simplicity and durability entitle it to our notice; and indeed it would be well, that in all our machinery, these two qualifications were more closely attended to; for unless a machine is *simple* in its contrivance, it is useless to the farmer, and unless *substantially* made, and strongly braced, there is little probability of its continuance over one season. With Hussey's Reaper, we cut from 12 to 17 acres per day—the average work done is 15 acres per day. It requires one person to manage the team and another to throw off the grain:—eight men to bind the sheaves as fast as cut, are kept in active employment; and the machine costs about one hundred dollars. Here we have all that is necessary to show the economy from this labor-saving machine—let us test it by figures. Taking men as we find them offering to labor for us, very few are capable of eradling more than two acres per day in a workmanlike manner, but to make our calculations more exact, we will suppose them equal to eradling two and a-half acres per day. A field of twenty acres in wheat will then require 8 days' eradling at \$1.50 per day, is \$12 00
16 days' raking and binding (two binders to each cradle,) at \$1, 16 00

\$28 00

Or \$1.40 per acre. If an acre yields 20 bushels of wheat, the reaping, binding and shocking, is equal to *seven cents* per bushel. Then, if the field of 20 acres had been reaped by Hussey's Machine, worked at a moderate pace, it would have been finished in 1½ days. Therefore, the cost of a team and driver at \$1.50 per day, is \$1 88
8 men binding for 1½ days, at \$1 per day, 12 00

\$13 88

Or 69 cts. and 4 mills per acre. If the yield, as in the former case, is 20 bushels per acre, then the cost of reaping per bushel, is 3 cents and 4.7 mills; being a gain in favor of the reaper, of about *three and a-half cents per bushel*. The rate of wages may vary in different places, but will not essentially vary the above result. Any farmer can make his calculations from the data set forth, and add a proportion of ten per cent per annum, on the cost of the reaper for its wear and tear, distributing this charge among each of the crops reaped by it; as it reaps equally well, wheat, barley, rye and oats.

I have before me the cost of cultivating, harvesting and preparing 2 different crops of wheat in my neighborhood the past autumn, *ready for market*; the cost of them respectively being 25½ cents, and 29¾ cents per bushel; a result of system, order and economy not to be accomplished without the machines we have described. AGRICOLA. Seneca Co., April, 1849.

The Veterinary Department.

Hoove in Cattle.

EDS. CULTIVATOR—Allow me to suggest a quicker and much easier way of curing an animal hooved on clover. Take a straw band, with a knot in the middle as large as a man's fist, put plenty of tar upon it, and put it in the mouth of the animal, and tie it on top of the head, not too tight—so that she can chew it. Then put two or three table spoonfulls of the tar in the mouth. This will relieve the animal almost instantly. I have cured at least twenty cattle in this simple way, and can cure any one in fifteen minutes at most, with absolute certainty. If the animal is hooved upon corn or rye chop, [corn or rye coarsely ground, and mixed with cut straw or hay,] I take a pint of lard or half a pound of glauher salts, and drench the bowels with it. I have known several cattle to be cured in this way;—but never had but one of my own foundered,—it was a cow fresh in milk. I gave her lard—she soon got better, but lost her milk, and for a week or two gave but little. She lost all her hair; it came off in great bunches. B. M. ELLIS. Muncy, Lycoming Co., Pa., Jan. 30, '49.

Stretches in Sheep.

In answer to an inquiry made in our March number, we have received several articles in relation to this disease, the most important portion of which we give as follows:

MR. J. S. PETTIBONE, of Manchester, Vt., has lost several sheep by this complaint, and from a *post mortem* examination of most of them, he is convinced that the cause is a stoppage by a part of the small intestines being drawn into itself,—constituting what is called intorsusception. He states that all he has examined have presented this appearance. He thinks it difficult to cure, unless taken as soon as it can be perceived from the symptoms exhibited by the sheep—if delayed twelve hours, he says the animal may as well be "killed and put out of its misery." His remedy is, to take a sheep as soon as it appears to be affected, raise it up by the fore legs, and move it up and down; then take it by the hind legs and move it in the same way. Then give it from half to three-fourths of a pound of lard, cut up into pieces of convenient size to put down its throat. Then turns out the sheep and gives it a smart run. This seldom fails to produce a cure. Mr. P. is in doubt as to the remote cause of the affection. He thinks it often attacks sheep that are in good condition and apparently healthy.

In support of Mr. Pettibone's views, we may add that the editor of the *Berkshire Cultivist* agrees with him as to the cause of stretches, and recommends similar treatment. He states that he has also given for this difficulty, "common squirrel shot"—about an ounce to a sheep; though a smaller quantity will often produce relief. A correspondent of the *Michigan Farmer* states that his remedy is "simply driving about the sheep affected with the disease, so as to exercise them somewhat violently."

MR. C. W. HILLMAN, of East Avon, N. Y., writes—"We have had more or less of stretches in our flock for the last fifteen years. We have tried all the usual remedies recommended, with little success, till we tried the following: Take a sharp-pointed pen-knife, and make an incision in the third ridge in the mouth, and start the blood pretty freely. This has proved an effectual cure in every case. As a preventive, I would recommend one tea-cupfull of sulphur mixed with eight quarts of salt. Keep it by them from fall till spring."

MR. ALBERT A. DOANE, of Middle Granville, N. Y., writes—"We have found in most cases, that bleeding

at the ear would give immediate relief. We have used, in some instances with good success, gunpowder and rum, in the proportion of half a gill of rum to two tea spoonfulls of powder. We have also tried a strong decoction of thoroughwort or boneset, made sweet with molasses, say half a pint to a dose; followed by an injection of slippery elm bark. From our experience, we have more confidence in this than in the powder and rum. As we are situated where we cannot get pine or hemlock boughs, we tried as a substitute this winter, pulverised rosin, mixed with salt, sulphur and ashes, and have been very successful in its use."

Scours in Sheep.

MR. REED BURRITT, of Burdett, N. Y., writes in reference to this disease:—"Late in the fall of 1837, the scours got among my lambs, and I was not able to arrest the disease until some forty of them died. At length a friend recommended rennet, prepared the same as the cheese-maker uses it to set a curd for cheese. I accordingly gave to each lamb that was diseased, about four table spoonfulls, and not one of them failed to recover. We then prepared a quantity sufficient to soak a bushel of oats, and fed them in piece-meals to the remainder of the flock, which consisted of about one hundred, and the disease stopped entirely. I have used no other medicine for that disease to this day, and it has never failed of curing. I keep it on hand the year round; but it is seldom called for excepting in the fall, when the grass is frozen. I have not had more than two or three cases a year since 1837. An old sheep needs six or seven spoonfulls. If they are not relieved in twenty-four hours, I repeat the dose; but it is very seldom that I have had to repeat it. One thing further I entreat the shepherd to do, for the comfort of the innocent animals; which is to tagg them."

I am credibly informed that wheat flour and water, mixed to the thickness of milk, will readily cure scours in human or brute creatures. A piece of opium as large as a common chestnut, dissolved in a pint of good brandy, will cure the scours in a horse. I have never known it to fail."

MR. ALBERT A. DOANE, of Middle Granville, N. Y., pursues the following course, in reference to scours:—"When the cases are severe, we give pulverised charcoal, about two or three table spoonfulls for a dose. As a preventive (and we believe in the homely proverb, 'an ounce of prevention is worth a pound of cure,') we mix powdered charcoal, sulphur, and ashes with salt, and keep the mixture in some convenient place, where the sheep can get at it at all times."

Spaying Cows and Heifers.

EDS. CULTIVATOR—In answer to your correspondent who asks for information in regard to spaying cows, I would say that I have practiced it for twenty-five years, and think I can judge with tolerable correctness as to the benefits of the operation.

A spayed cow will give more milk in a year than when she went dry thirty, sixty, or ninety days; and she is ready to fatten at any time, and will take on fat much more readily than those cows that are dried and fatted in the usual way. I have followed the practice—(and so did my father before me)—of spaying cows in the spring, and milk them two or three years, or as long as I please—without the trouble that is had with those that are not spayed. When fatted, the quality of the beef is superior to that of any ox or steer, and fetches a higher price in market. In the town or city, where milk is the object, the spayed cow may, as you say, "continue in milk indefinitely as to time."

As to the operation, it is difficult to give such a description on paper, as would enable the farmer to per-

form it successfully; and so it would be in regard to describing the amputation of a limb, or the dissection of any part of the body. I can only say, that spaying can be performed without any particular risk.

It is important that the farmer should know what his cow is best fitted for. If she is inclined to get fat with good feeding, I would not spay her for the purpose of milking, but would do it for the purpose of fattening her. But on the other hand, if the object is milk, and the cow is a good milker, spay her and keep her in milk. I have milked them from one to six years; and in the counties of Ontario, Livingston and Genesee, I have operated on hundreds from six weeks to eighteen years old.

Reference can be given to those who have milked spayed cows for several years, have worked spayed heifers, and have raised and fattened them from calves, and all speak in high terms of the benefit of the operation, when well performed. WM. CARTER. *East Bloomfield, Ontario Co., N. Y.*

NOTE.—It may be well to add to the above, the conclusions of M. Morin, veterinary surgeon at one of the French Royal Depots. He furnishes a long article for a French journal, which is summed up as follows:

1. Spaying induces permanency of milk, increase of quantity, and improvement of quality; richer, more buttery, superior color, finer taste and flavor.

2. The most suitable age is six years, and after the third or fourth calf.

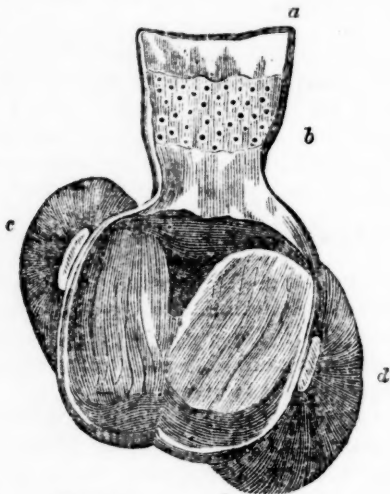
3. The spayed cow fattens more easily, and furnishes beef of a better quality.

4. Cows that are bad breeders may be kept as good milkers, and the quality of good cattle kept up. EDS.

The Poultry Yard

Digestive Organs of Fowls.

The great powers of digestion possessed by gallinaeous fowls, have often excited remark; but of the *machinery* by which they are able to grind such hard substances as the haws of thorns, the stones of cherries, and other similar seeds, not much is generally known.



49—GIZZARD OF THE TURKEY.

For this reason, we have thought our readers would be interested with the accompanying cut of the gizzard, and a description of that and other digestive organs of fowls.

The cut, (fig. 49) shows the gizzard of the turkey laid open: *a*. lower portion of the crop; *b*. ventriculus succenturiatus, with its zone of glands; *c*. muscle of the left side of the gizzard; *d*. muscle on the right side.

Various experiments have been made to test the sol-

vent and grinding powers of the gizzard. Without going into detail in describing these experiments—which in many instances appear to have been unwarrantably cruel—it may be useful to mention some of the astonishing results which were produced.

Spallanzani prepared tin tubes, which he filled with grain and forced down the throats of common fowls and turkeys. After twenty to thirty-six hours the birds were killed; the grain had been dissolved, and the tubes broken or distorted in a singular manner. He then strengthened the tubes by soldering plates of tin with small holes through them, to the ends of the tubes. The tubes, when taken from the gizzard of the turkey, were compressed or broken, the ends driven in, and the grain was entirely dissolved. He next tried what effect would be produced by sharp bodies thrown into the gizzard. In twenty-four hours the gizzard of a cock broke off the angles of a piece of rough jagged glass; and no wound or injury appeared on the gizzard. Twelve needles were driven into a ball of lead, the points projecting about a quarter of an inch from the surface; the ball was coated with paper, and forced down the throat of a turkey. It was retained thirty-six hours, the bird showing no uneasiness. When taken from the gizzard, the points of the needles were found broken off close to the surface of the ball. Two of the points were found among the partly digested food—the others were believed to have passed through the intestines. In the next experiment, he fixed twelve small lancets, very sharp both at the points and edges, in a similar ball of lead. He says—"the lancets were such as I use in the dissection of small animals. The ball was given to a turkey cock, and left eight hours in the stomach; at the expiration of which time that organ was opened, but nothing appeared but the naked ball, the twelve lancets having been broken to pieces. I discovered three of them in the large intestines, pointless, and mixed with the excrements; the other nine were missing, and had probably been voided. The stomach [gizzard] was sound and entire as that which had received the needles. Two capons, of which one was subjected to the experiment with the needles, and the other with the lancets, sustained them equally well."

We give from Martin's late Treatise on Poultry, the following description of the digestive organs of fowls:

"The œsophagus or gullet leads into a dilatation called the crop, craw, or *ingluvies*—a large membranous cavity, which lies just before the breast bone, and which receives the food when first swallowed. It is furnished with many mucous and salivary glands, the exudation from which tends to soften the grain, and fit it for further elaboration. This crop or sack is not very sensible, and when gorged with food may be opened by means of a sharp pen-knife or lancet, and relieved of its contents. If the edges of the wound be neatly joined together, and secured by a few stitches—the bird being at first kept fasting, and afterwards only allowed a little sopped bread or the like—it will generally recover without any ill symptoms. To this crop succeeds a narrower portion, called *ventriculus succenturiatus*, the lining membrane of which is beset with numerous glandular orifices, forming a sort of belt, which pour out a copious secretion of digesting or gastric juice, which mingles with the food in the gizzard or grinding stomach, into which the *ventriculus succenturiatus* immediately leads. The gizzard is a powerful grinding mill, composed of immensely thick and firm muscles, and lined with a tough insensible coriaceous membrane. The two massive hemispherical muscles which essentially form the grinding apparatus, are opposed face to face, like two millstones, and they work upon each other, titurating to a pulp the food subjected to their action, and rendering it fit, after being broken down, for the influence of the gastric juice, which, un-

til this takes place, in the case of grain, would have little or no solvent power upon it. To assist in this mill-like operation of the gizzard, granivorous fowls swallow small pebbles or stones—a practice clearly instinctive, and sometimes carried to a greater extent by domestic fowls than would seem necessary. Nevertheless, without a sufficiency of these pebbles (and fowls should never be so kept as to be unable to obtain them,) digestion is suspended, the body derives no nutriment from the food (unless indeed it be pulaceous,) and the bird droops and wastes away."

Mr. M. adds the following from Sir Everard Home's *Comparative Anatomy*:

"When the external form of this organ [the gizzard] is first attentively examined, viewing that side which is anterior in the living bird, and on which the two bellies of the muscle and middle are more distinct, there being no other part to obstruct the view, the belly of the muscle on the left side is seen to be larger than on the right. This appears, on reflection, to be of great advantage in producing the necessary motion; for if the two muscles were of equal strength, they must keep up a greater degree of exertion than is necessary—while in the present case, the principal effect is produced by that of the left side, and a smaller force is used by that on the right to bring the parts back again."

"The two bellies of the muscle, by their alternate action, produce two effects,—the one, a constant friction on the contents of the cavity; the other, a pressure on them. This last arises from a swelling of the muscle inwards, which readily explains all the instances which have been given by Spallanzani and others of the force of the gizzard upon substances introduced into it—a force which is found by their experiments, always to act in an oblique direction. The internal cavity, when opened in this distended state, is found to be of an oval form, the long diameter being in the line of the body; its capacity nearly equal to the size of a pullet's egg; and on the sides there are ridges in the horny coat (lining membrane) in the long direction of the oval."

"When the horny coat is examined in its internal structure, the fibres of which it is formed are not found in a direction perpendicular to the ligamentous substance behind it; but in the upper portion of the cavity they have a direction obliquely upwards."

"From this form of cavity it is evident that no part of the sides are ever intended to be brought in contact, and that the food is triturated by being mixed with hard bodies, and acted on by the powerful muscles which form the gizzard."

Raising Chickens.

EDS. CULTIVATOR—Many persons fail in raising chickens, for want of a little attention to them at this season of the year. Convenient boxes for them to lay and hatch in should now be made. They should be nailed securely in sheltered places, and filled with soft hay. Old boxes should be cleansed, scalded with boiling water, and the bedding renewed. As soon as a hen shows a disposition to sit, 12 or 15 eggs should be given her and a date 21 days in advance, should be marked with chalk in a conspicuous place. Hens should be preferred that have proved themselves good sitters, and that have been successful in raising their broods. The difference between a good and bad hen is worth attention. I have a hen whose long and polished spur proves her six or eight years old, which to my recollection, has hatched her eggs and raised two broods of vigorous chickens every season. A. B. Setzler's Store, Chester Co., Pa., Jan., 1849.

Plant well, if you would reap abundantly.

Domestic Economy, Recipes, &c.

Bread from Sprouted Wheat.

EDS. CULTIVATOR—In your November number, page 354, a correspondent at Granville, Ohio, wishes to know the best mode of making bread from the flour of sprouted wheat. Good bread can be made from such flour, by adding a portion of whiskey, when mixed into dough. The quantity to be ascertained by trial—depending upon how much the wheat is sprouted. No more specific directions can be given, that would be of service; but your correspondent may be sure of as good, light, sweet bread, made from the flour of sprouted wheat, when the proper quantity of whiskey is ascertained and added, as from the best of flour. WM. A. TRYON. *Grand Rapids, January 22, 1849.*

Substitute for Wringing Clothes.

EDS. CULTIVATOR—In reply to the inquiry, made in your February number, by "D. E." of Meriden, N. H., I would inform him that there is a very simple and efficient substitute for the destructive operation of wringing clothes, known as "Robinson's Drying Machine." One suitable for a private family, say of twelve or fifteen persons, would, with its enclosing case, occupy about the space of an ordinary chest of drawers, and would resemble it in its exterior form. Within this case, are two open or spare boxes, revolving on an axis, into which the clothes are thrown *dripping wet* from the wash tub, whether of linen, cotton or woolen, whether wearing apparel, house linen, blankets, counterpanes, or what not; when by the working of the machine five or six minutes, which requires very little strength, a current of atmospheric air is produced, and a centrifugal pressure created sufficiently to discharge the water so completely from the articles in these boxes, that fifteen minutes exposure to the air renders them fit for the ironing board!

This is what the patentee claimed when showing me the invention; and from the experiment I saw made on some heavy pilot cloth, I could have no doubt of the correctness of his statements.

On further inquiry of those who had it in use, I found it gave universal satisfaction; indeed, the saving to the clothing and the economy in fuel (where drying closets were in use) is so great, that not only large public establishments and private families have adopted them, but laundresses, in the vicinity of cities and large towns are willing to meet the expense of purchasing these machines; and they feel amply paid for the outlay, by the saving they make in time, labor and fuel.

Machines on a large scale are got up for manufacturers, as by its use all kinds of seoured wool, woolen clothes, baizes, flannels, blankets, &c., &c., can be dried in the short space of six minutes, leaving only sufficient moisture to work and finish off the goods. Carpet-makers and calico-printers also find these machines of the greatest value in expediting their work.

In our cold climate where the hanging out of wet clothes with the thermometer at zero is a matter of positive suffering, and the taking of them in, at night, almost a matter of impossibility, I know of no addition to our household comforts that would be so desirable as such a substitute, to say nothing of that fruitful source of family discontent—a rainy washing-day. R. BUTTERNUTS, *February, 15, 1849.*

Recipe for Cure of a Cough.

Take of boneset as much as you can grasp in your hand, and two quarts of water; boil it to one quart; add a pint of molasses; let it simmer a few minutes,

and then strain and set it by to cool. Take one gill three times a day before eating. It is an excellent remedy. I have several times received great relief by it. H. K. South Salem, Westchester Co., N. Y.

Recipe for Making Johnny Cake.

Three tea cups of Indian meal,
One do Wheat flour,
Two do milk,
One do cream,
One egg, one tea spoonful of saleratus and half a teaspoonful of salt. A. FARMER'S DAUGHTER.

Tuscarora Corn.

EDS. CULTIVATOR—In your January number is a short notice of the Tuscarora corn. To prevent its moulding, it should be husked immediately after being harvested, leaving on enough husks to braid it together; after which it should be hung up a few weeks, either in or out of doors, as most convenient. A kind of bread is made of this corn when green, by the Tuscarora Indians. It may be taken off the cob by a coarse grater and made into balls or rolls, which are wrapped in corn leaves and boiled an hour, if the roll is as large as a goose egg. A SUBSCRIBER. Lewiston, Niagara Co., March 9, 1849.

Butter Worker.

EDS. CULTIVATOR—As I observed an inquiry addressed to me in the February number of *The Cultivator*, respecting the cost, &c., of a butter worker, I will answer by giving a short description of mine—plain enough if possible, to enable those wanting the article to get one made, (as I did,) by mechanics in their own neighborhood.

The machine is simply a table, the bed of which is a white maple plank, 3 ft. long, by 2 ft. 2 inches wide. A conduit is cut with a gouge half an inch deep, on both sides, and diagonally across the lower end, to a point in the centre, so as readily to carry off all brine and butter-milk. This table is placed upon a strong frame, so constructed that one end is 2 feet 2 inches high, and the other 2 feet 9 inches from the floor to the surface, showing an inclined plane of a little more than two inches to the foot. Above this, and near the centre of the left hand side—(as you stand at the upper end)—is attached a brake by means of an iron shackle, formed of a bolt passing down through the frame of the table, on that side, and secured by a nut, in the lower end of which is an eye. To the lower end of the brake, by means of a bolt entering it endwise, is secured a short shackle with an eye in one end, through which the bolt passes into the brake, and in the lower end is to receive a short link, to attach it to the lower bolt. The whole long enough to let the square edge of the brake lie level across the table. The brake is about 4 feet long, 5 inches wide and 2 inches thick—one edge square and the other round. The lower end worked off and banded, and that part extending over the table, worked into a handle.

The table should be prepared for the reception of the butter, by being thoroughly scalded with hot, and cooled with cold water. With a convenient ladle to turn and handle the butter, and the temperature of 56° or 58°, a man can work 100 lbs. of butter in one hour, which I think the dairy-women will agree with me in saying, is altogether a very great saving of labor. The cost of the brake is about \$5. B. A. HALL. New Lebanon, February 19, 1849.

Plow deep while sluggards sleep,
And you shall have corn to sell and keep.

The Horticultural Department.

CONDUCTED BY J. J. THOMAS.

Cultivation of Peaches.

EDS. CULTIVATOR—Is it a general fact that the peach will degenerate in quality on being produced from seed?

I had from my agricultural or horticultural reading, derived the opinion that the peach would diminish in quality if a continued reproduction from seed were persisted in. I ever doubted the correctness of that opinion, as indicating imperfection in the arrangement of nature; and of late, I have been led to doubt it still more. Passing through, near the central part of this county, [St. Joseph, Mich.,] I called at the residence of Mr. H. K. Farran, whom I afterwards found to be a very intelligent farmer and fruit grower; and whose fine looking peaches, I thought offered quite an inducement to the cultivation of *taste*. Upon trial, I found them to be delicious. I remarked, that I supposed he had obtained his fruit by budding; he said no, he raised them from pits brought into the county with him; that they had been reproduced *three* times, and had *improved at each successive reproduction*. I alluded to the opinion of eastern cultivators of the peach: "I know," said he, "they believe it degenerates, and perhaps it does on most eastern soils; but here," continued he, "is the home of the peach." He remarked further, that "he had raised fruit every year since his trees began bearing, and that a friend of his near by, had raised large quantities every year for fifteen successive years."

A lady of my acquaintance here, informed me that she planted the pits of some very inferior peaches, and this year, the trees were burdened with the most delicious peaches she ever tasted. I could adduce numerous additional cases, on good authority, where the same results have followed the planting of the seed, or pits. CHAS. BETTS. Burr Oak Farm, Mich., 1849.

We suppose a similar law prevails in the production of peaches from seed, as in the production of other fruits by the same mode. That the degeneracy of a *species* should follow from this mode of propagation, would be contrary to nature. But if we plant seeds of our finest varieties of fruits, it is not to be expected that all the varieties so produced, would be equal to the parent. Experience proves that in raising from seed, the proportion of those kinds which are really *first rate*, is very small. EDS.

Supports for Climbing Plants.

The editor of *The Horticulturist*, gives us in a late number, the following interesting and valuable hints on the supports for honeysuckles and climbing roses, with the first of which we have been long familiar, and have never, in all the highly finished, carved, and painted supports, ever seen its equal:—

"How to make *arbors* and *trellises* is no mystery, though you will do doubt, agree with us, that the less formal and the more rustic the better. But how to manage single specimens of fine climbers, in the lawn or garden, so as to display them to the best advantage, is not quite so clear. Small fanciful frames are pretty, but soon want repairs; and stakes, though ever so stout, will rot off at the bottom, and blow down in high winds, to your great mortification; and that too, perhaps, when your plant is in its very court dress of bud and blossom.

"Now the best mode of treating single vines, when you have not a tree to festoon them upon, is one which many of you will be able to attain easily. It is nothing more than getting from the woods the trunk of a cedar tree, from ten to fifteen feet high, shortening-in all the

side branches to within two feet of the trunk, (and still shorter near the top,) and setting it again, as you would a post, two or three feet deep in the ground.*

"Cedar is the best; partly because it will last forever, and partly because the regular disposition of its branches forms naturally a fine trellis for the shoots to fasten upon.

"Plant your favorite climber, whether, rose, wistaria or honeysuckle, at the foot of this tree. It will soon cover it, from top to bottom, with the finest pyramid



51—CLIMBING PLANTS ON CEDAR TRUNKS.

of verdure. The young shoots will ramble out on its side branches, and when in full bloom, will hang most gracefully or picturesquely from the ends.

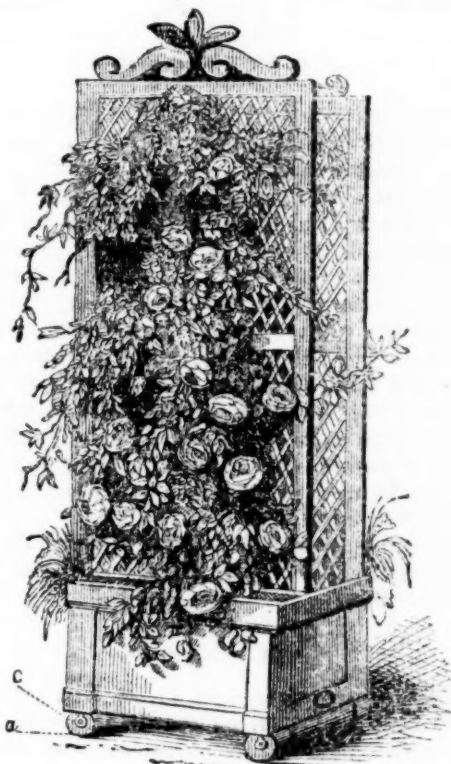
"The advantage of this mode is that, once obtained, your support lasts for fifty years; it is so firm that winds do not blow it down; it presents every side to the kindly influences of the sun and air, and permits every blossom that opens, to be seen by the admiring spectator. How it looks at first, and afterwards, in a complete state, we have endeavored to give you a faint idea in this little sketch.

"What shall those of us do who have neither cottages nor gardens?—who, in short, are confined to a little front and back yard of a town life, and yet who love vines and climbing plants with all our hearts?"

"That is a hard case, truly. But, now we think of it, that ingenious and clever horticulteur, Monsieur VAN HOUTTE, of Ghent, has contrived the very thing for you.† Here it is. He calls it a 'Trellis Mobile;' and if we mistake not, it will be quite as valuable for

* We owe this hint to Mr. Alfred Smith, of Newport, a most intelligent and successful amateur, in whose garden we first saw fine specimens of this mode of treating climbers.

† *Flore des Serres.*



53—MOVEABLE TRELLIS.

the ornament and defence of cities, as the *Garde Mobile* of the Parisians. It is nothing more than a good strong wooden box, upon wooden rollers. The box is about three feet long, and the double trellis may be eight or ten feet high. In this box, the finer sorts of exotic climbers, such as Passion Flowers, Everblooming Roses, Maurandias, Ipomea Learii, and the like, may be grown with a charming effect. Put upon wheels, as this itinerant bower is, it may be transported, as Mr. VAN HOUTTE says, "wherever fancy dictates, and even in the apartments of the house itself." And here, having fairly escorted you back to your apartments, after our long talk about out-door drapery, we leave you to examine the *Trellis Mobile*, and wish you a good morning."

Raule's Jannett or Neverfail.

EDS. CULTIVATOR—*Raule's Jannett*, as described by Mr. Byram, *Horticulturist*, vol. ii. p. 19, as to the growth of the tree and its peculiar habit of late vegetation, is applicable to the *Geneting* that I have been acquainted with for fifty years. His description of the fruit is nearly correct; the flesh is of the color between white and cream; but his drawing of the fruit, p. 18, is erroneous; an irregular shaped *Geneting* is rarely to be met with.

A nurseryman in Mr. Byram's neighborhood (Mr. Geo. G. Hikes) has in his catalogue *Raule's Jannett*. Now I suppose these two are looked upon as the same fruit.

The first regular nursery that I have any knowledge of, was established by John Lightfoot, on the south side of the Kentucky river, in what was then Woodford county, (now Anderson.) From this nursery, were drawn the first *Genetings* that ever came to my knowledge; they were quite popular, both on account of the fineness of the fruit, and their habit of late vegetation. At a later period, Mr. Francis Smith made a nursery near to Byram's station, in Fayette county, Kentucky. Mr. James Munday established a nursery in the same neighborhood; each of these nurseries propagated mainly *Genetings*. This fruit, in the beginning of the present century, was very popular, and has continued

so to this day. I have planted, in the course of my life, five orchards. If I had now to plant another, of apples, I would plant forty trees out of every hundred, of Genittings.

The impression left on my mind is, that Mr. Lightfoot procured the Genittings from Virginia. Smith's and Munday's came from Lightfoot. From the year 1794, to 1822, I lived in Lexington, Ky. When I removed to where I now live, (then Gallatin county,) in 1823, I planted an orchard of twelve acres; procuring my fruit from Isaac Bledsoe and John Jas. Dufour. The latter was the founder of the Swiss colony, Vevay, Ia., The Genittings were the same that I had been accustomed to see about Lexington, and the same of which I send you a small bundle of grafts by this day's mail.

It seems that *Geniting* is a misnomer; but having used it for fifty years, I am not inclined to change it—certainly it has no quality of early maturity. It may remain on the trees in this climate, without material injury, till the first of December.

Mr. Byram speaks of Yellow or Striped Jannet. I am not acquainted with it. LEWIS SANDERS. *Grass Hills, Ky., March, 1849.*

Color of Apples.

The following remarks of F. R. ELLIOTT, at the Ohio Fruit Convention, on the difference in the prevailing color of apples in the northern and in the southern part of Ohio, will be interesting to pomologists:

"A visitor to this convention will be struck at once, with the very marked difference between those from the north and south parts of the State. In those from the north, yellow or green is the prevailing color, while red prevails among those from the south. The apple of red exterior, is generally more fair and perfect, when grown at the south, than the yellow or green fruit. At the north, most of our yellow or green apples, have a handsome blush red cheek, this, when the same variety is grown at the south, disappears; and if the trees are upon bottom land or alluvial soil, is supplied by a dark mould or blotch, which presents any thing but an attractive appearance."

Setting Young Trees.

EDS. CULTIVATOR—I have suggested, to those who are setting out young orchards, to dig the holes large, and at least two spades deep, as advised by Downing, J. J. Thomas, and others. I had supposed, however, that it would be of but little benefit on our prairie lands; but A. R. Whitney had occasion to remove two nursery rows of apple trees, that had been set two years, which crossed a spot where there had been a pit for burying potatoes. The trees on the old pit had made three times the wood of those on each side of it, that were similar in every respect when set, and the roots were in proportion.

I would like to know whether crowding the growth of young orchards would not be likely to affect the longevity of the trees. NATHAN WHITNEY. *Franklin Grove, Lee Co., Ill.*

Large Quince Tree.

EDS. CULTIVATOR—There is a quince tree growing on the lands of D. DUTTON, in the town of Seneca, which has been carefully measured by myself, in the presence of others, and the result was as follows—girth around the trunk, 6 feet 4½ inches—height of tree, 18 feet, and width across top, 27 ft. 8 in. It bore the past season 10½ bushels of marketable quinces. The fruit is of tolerable quality, something of the pear-quince variety, but seems to be well adapted to grow the pear upon, as some stocks of the kind, which I bud-

ded with the Bartlett, made a growth of over 6 feet the first season, and it increases in size with the pear. The soil which the original tree has grown from, is loam resting upon limestone gravel, which retains a great degree of moisture, and has been manured by wash from the kitchen, and an accumulation of chip dirt to the depth of several inches. I. HILDRETH. *Big Stream Point, March 12, 1849.*

Notices of Publications.

TRANSACTIONS OF THE AGRICULTURAL SOCIETIES OF MASSACHUSETTS, for the year 1848. Collected from the original returns, by WILLIAM B. CALHOUN, Secretary of the Commonwealth.—The returns of all the agricultural societies in Massachusetts, are annually published in an abridged form, under the direction of the Secretary of State, who has employed Hon. A. W. DODGE, an intelligent farmer of Essex County, to compile the work. This volume furnishes in a convenient form, the substance of the valuable information which is yearly accumulated.

ELEMENTS OF AGRICULTURE, for the use of Primary and Secondary Schools. By L. BENTZ, of France, Director of the Normal Primary School of the Meurthe, and A. J. CHRETIEN DE ROUVILLE, Professor of Rural Economy in the same school; approved and recommended by the Governmental Council of the Department of the Meurthe. Translated and adapted to the use of the Rural Primary Schools of the United States, by F. G. SKINNER. CAREY & HART, Philadelphia.—This is a little manual, which is calculated to be useful to persons beginning the study of the principles of agriculture. It is entirely elementary, and written in a style of great simplicity, so that the matter is brought within the comprehension of children of 12 years of age. We recommend it to public attention.

THE COTTAGE GARDEN; containing Practical Directions for the Culture of FLOWERS, FRUITS & VEGETABLES, the NATURES and IMPROVEMENT of SOILS, MANURES, and their APPLICATION, &c. By WALTER ELDER. MOSS & BROTHER, Philadelphia.—This is a book of over 200 pages, duodecimo, written as the title purports, by "an experienced practical Gardener." The author entertains the idea that previous writers on horticulture and gardening, have addressed themselves too exclusively to "the inhabitants of the mansion;" he has concluded, therefore, to take "untrodden ground" by addressing himself "entirely to the intelligent cottagers of America."

"THE FARMER'S EVERY-DAY BOOK," is the title of a new book for farmers, now nearly ready for the press, by Rev. JOHN L. BLAKE, D. D., of New-Jersey. It is to be a large octavo, of over 500 pages, to embrace—1st. The Social Relations of Rural Life; 2d. Theoretic and Practical Agriculture; 3d. Dictionary of Terms, with 500 Receipts relating to Rural and Domestic Economy.

A PRACTICAL TREATISE on the Management of Fruit Trees; with Descriptive Lists of the most valuable Fruits for General Cultivation; adapted to the Interior of New England. By GEORGE JAKES. ERASTUS N. TUCKER, Worcester Mass.—Mr. JAKES has been considerably known for several years, from his interesting contributions to various agricultural and horticultural periodicals, and through the reports of the Worcester County Horticultural Society, of which he is Secretary. He is a judicious practical cultivator of fruits, and has had, besides, extensive opportunities for the acquirement of information on the subject of horticulture. His book appears to have been designed rather

as a *manual* than an elaborate treatise; but will be found to contain many useful suggestions.

BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW, or Quarterly Journal of Practical Medicine and Surgery.—We have received the re-publication of this work for January, 1849. Like all the previous numbers, it contains a large amount of matter of great value to the faculty, and interesting to others. Published by R. & G. S. WOOD, New-York, at three dollars per year.

THE WISCONSIN FARMER AND NORTHWESTERN CULTIVATOR, is the title of a monthly periodical published at Racine, Wisconsin, by MARK MILLER. We have received three numbers of the work, which have been filled with useful matter. Each number contains twenty-four pages octavo, and the terms are fifty cents a year.

THE WATER-CURE JOURNAL, and **HERALD OF REFORM**; devoted to the Philosophy and Practice of the Hydropathic System of Curing and Preventing Disease; embracing the true Principles of Health and Longevity. JOEL SHEW, M. D., Editor. The object of this publication is indicated by its title. It is published monthly by FOWLERS & WELLS, New-York, at one dollar a year in advance. Each number contains thirty pages octavo. From the specimens we have seen, we should judge it to be ably conducted.

Answers to Correspondents.

CORN-FODDER FOR SOILING COWS.—J. C. J., New-castle, Del. The article on the soiling of milch cows, as practiced by CHEEVER NEWHALL, Esq., of Boston, was published in *The Cultivator* for 1845, pages 22, 23. We are not aware that he has made any change in his plan, but presume he would be willing to answer any questions in regard to the business.

CURING CORN-FODDER.—We can hardly say what is the best mode of curing this article, where it is grown purposely for fodder. Without very favorable weather, it is difficult to dry it so that it will neither heat nor sour. Some put it in small bundles, bound near the top, after it has dried for several days, and then put the bundles in small shocks, till so thoroughly dried that the fodder will answer to put in the barn or stack. The objection to this is, that the stalks are apt to cripple down while in the shock, and if the weather is damp, they are liable to rot. Another course is, to dry the stalks for a day or two, and then put them into heaps, and let them heat,—taking care to open the heaps before the heat has reached so high a degree as to injure the quality of the fodder. After the fodder has received a *sweating* of this kind, it dries readily on being exposed to the air, and is not liable to heat again on being stacked.

DRAINING TILES.—We have never heard any objection to draining tiles, "where the water comes in at different points along the drains." We presume the water will "find its way in;" but those who have had long experience in the use of tiles can answer, and we should be glad to hear from them.

RYE GRASS.—We have but little acquaintance with this grass as a *hay crop*. It has not been much grown in this country. The writer has tried it a little as *pasturage*, for which it seemed to do well. It starts early in the spring, and keeps green late in the fall. In England it is accounted one of the best grasses for hay. It is too early to mix with timothy and red-top, as the stalk would be dead before the others would be in blossom. There are several kinds of rye-grass. The perennial kind, (*Lolium perenne*) is considered good; but a sub-variety of this, called Pacey's rye-grass, is gene-

rally preferred. About half a bushel of good seed is the quantity usually sown to the acre.

NAME OF A PLANT.—S. J., Weybridge, Vermont. We do not recognise the plant you wish to know the name of, by your description. If you will send us a specimen of it while in flower, we can probably ascertain its name; or you can probably learn it from some botanist in your vicinity.

DORKING FOWLS.—N. B. P., Plymouth, Tt. We do not know of any Dorkings for sale in this vicinity.

CORN-PLANTER.—S. B. H., Providence, R. I. Emery's corn planter can be regulated to drop seeds at any distance, from four inches to six feet. The space between the rows may, of course, be whatever is desired. One man and a boy with a horse, will plant with this machine, from ten to twelve acres of corn in a day. This will give you an idea of the "economy."

RICH'S STRAW CUTTER.—We cannot say where this machine is for sale at the present time. It is less rapid in its execution than the cylindrical cutters, and we are not aware that it has any advantage over them.

DISEASE IN COWS' TONGUES.—W. R. M., Newport, Herkimer county, N. Y. Some authors speak of inflammation of the tongue, with the formation of vesicles or bladders, as a symptom of *black-leg*; but we have no account of *worms* in the tongue. What appeared to be worms in the case to which you allude, were probably, as you conjecture, inflamed pappillae. We should prefer giving the animal some cathartic medicine, and bleeding it a little, to "shaving" the tongue.

HAY PRESS.—M. W. M. Cornwall, C. W. We have taken measures to have a cut and description of one of the best presses, for *The Cultivator*.

BLACK ALDERS.—J. M. C., Carlisle, N. Y. Cutting alders in August, for two or three seasons will generally kill them.

MUCK.—The muck from alder swamps would improve the fertility of a gravelly soil.

LEAD PIPE.—G. A. H., Potsdam, N. Y. The cost per foot would vary, according to the size of the bore. Half-inch would cost four cents per foot—three-fourths inch six cents per foot. It may be had at the Albany Agricultural Warehouse.

Agricultural Societies.

OHIO STATE SOCIETY.—Fair to be held at Cincinnati September 5th, 6th and 7th, under the direction of the Ohio State Board of Agriculture. We understand that premiums are open to competition to citizens of other states. A splendid display will undoubtedly be made of all kinds of live stock, and all products of agriculture.

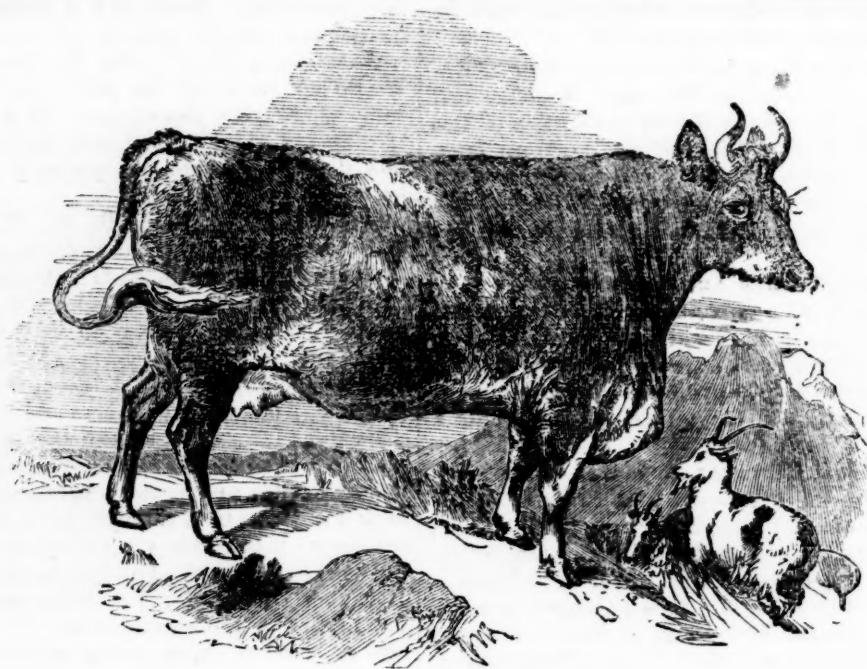
RENSSELAER COUNTY, N. Y.—Fair at Troy, on the 25th, 26th and 27th days of September. This is one of our most able and influential county societies. The exhibitions are always good, and the officers are making unusual exertions the present season.

ESSEX COUNTY, N. Y.—Fair to be held at Keeseville on the 18th and 19th. Sept. A handsome list of premiums is offered, and we presume a good exhibition will be made.

ONONDAGA COUNTY, N. Y.—Fair at Syracuse, on the 3d, 4th and 5th of October next. We have received a list of the premiums, regulations, &c., which are liberal and judicious.

WINDSOR COUNTY, VT.—Fair at Windsor, on the 4th and 5th of October next. The premium list is on a liberal scale, and we presume will call out an extensive competition.

LITCHFIELD COUNTY, Ct.—Show and Fair at Litchfield, September 26. The shows of this society are always interesting, and from the list of premiums, we presume there will be a good display the present season.



52—KERRY COW.

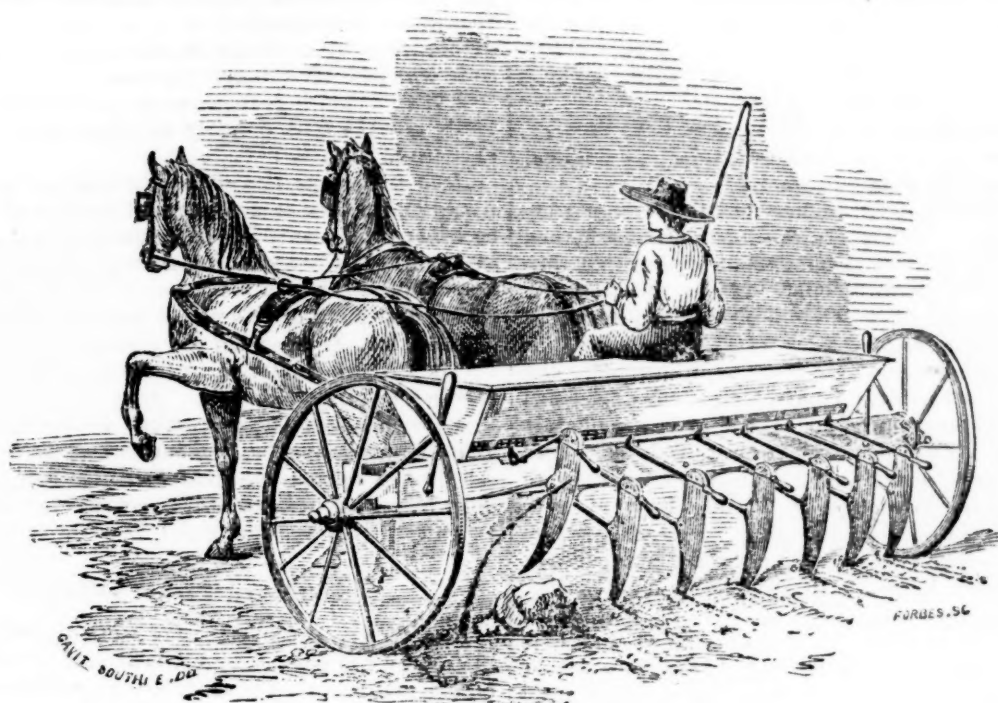
Irish Cattle.

In alluding, in a previous article, to the Irish cattle, we mentioned that there were two distinct stocks in the island, which might be considered indigenous. One of these, inhabiting the mountainous districts, evidently belongs to the race of Middle-Horns; while the other, whose natural habitat is the lower country, as clearly belongs to the division of Long-Horns. Of the former, there are several varieties, but the Kerry breed presents the most marked and distinct characters. In many points it resembles the North Devon; but it is described as shorter in the leg and thicker in the neck, and somewhat heavier in the shoulder. It is of various colors; some are red, others brown, others brindled, and some with white intermingled with these colors. It is a very valuable breed, and is held in high estimation. The animals are very hardy, thrive on indifferent pasturage, and generally find support on their native hills, unsheltered. The cows are excellent for the dairy; and in the celebrated butter districts of Ireland, are preferred to any other breed. Youatt says—"The cow of Kerry is truly a poor man's cow, living everywhere, hardy, yielding, for her size, abundance of milk of a good quality, and fattening rapidly when required." Our countryman, Mr. Colman, states that he found in Ireland a dairy of five cows of this breed which had yielded an average of 320 pounds each of butter, (actually sold) in a season. The Journal of the Royal Agricultural Society, gives an account of a trial made between three Ayrshire, three Galloway, and three Kerry cows. The Ayrshires gave rather most milk, but the Keries exceeded them all in butter. The following description of this stock is taken from Rawson's Survey of Kildare: "It [the cow] should have a sweet, placid countenance; a neat, clean horn; head very small; neck very thin at the head, tapering gently and increasing where it meets the shoulder, so as gently to cover it; shoulders flat and thin in the blade; chine not too fine; chest very deep and full at the breast; ribs rising roundly and swelling from the chine; couples close; hip not too wide, and nearly concealed by the high arching of the ribs, and closeness of the couples; hind quarters broad and lengthy, narrowing gradually to the tail, which should be snug between the bones; the quarters on the outside flat, on the inside full, but not extending too low; legs fine and clean in the bone."

We think the Kerry breed would be found very useful in this country; especially for the dairy, in the northern sections, where it is desirable to unite hardness of constitution with milking properties; and it seems rather singular that among all the breeds which have been imported, this one, which all authorities agree in representing of superior excellence, should have been overlooked.

Good Cows.—The cows which received the premiums of the Essex County (Mass.) Ag. Society, last year, gave the following products: The one which took the first premium was six years old—"of mixed breed." from 3d June to 3d July, she gave an average of 18 quarts of milk per day, beer measure, which yielded ten pounds of butter per week. Her feed "common pasture only." The one which took the second premium, gave from April 28th to September 28th, 2,405 quarts of milk. The one which took the third premium, was eight years old, a cross of the Durham breed. She gave from the 27th May to the 25th June, an average of 15½ quarts per day, which yielded a little over two pounds of butter per day—weighed after it had been twice thoroughly worked. In 121 days, her milk gave 192 pounds of butter. Her feed was "good pasture," with 15 quarts of meal during the trial of 30 days. The one which took the fourth premium was nine years old, and gave, in one year, 8767 pounds of milk, —probably about 4,383 quarts—or an average of about 12 quarts per day. The one which took the fifth premium, was eight years old, and afforded 15 pounds of butter in a week, in July last. Her feed "common pasture" and one quart of meal per day. The one which took the sixth premium, gave 2,448 quarts of milk from April 25th to September 26th.

"A SUBSCRIBER," at New South Berlin, N. Y., states that he has practiced running the common plow twice in the same furrow, in order to answer the purpose of subsoiling. This plan is similar in principle to trench plowing, and where the subsoil is rich in the elements which support vegetation, it answers well; but where the subsoil is sterile, it is a better way to loosen it with the subsoil plow, without bringing it to the surface, or deeply covering the top soil.



50—PALMER'S WHEAT DRILL.

Palmer's Wheat Drill.

THIS is a recent invention, designed to combine, in a simple and substantial form, the advantages of the numerous English and American drills. In relation to its construction and operation, we take the following from the description given by the inventor:

"The frame-work consists of a simple axle, four by six inches, and a pole, on the former of which is placed a box or hopper. One simple distributor driven by a cam wheel and friction rollers, conveys the grain from the hopper into the several drills, through hollow braces or levers, and the quantity in each drill cannot vary a spoonful in sowing five bushels. Each drill is independent of the others, and either can pass over a stone or other obstruction eighteen inches high, without interfering with the operation of the other. It will drill perfectly, a strip of land of any width, from four inches to the entire width of the machine, and will work on land of any shape, without wasting the grain. All the teeth or drills can be raised or remain in a position eighteen or twenty inches from the ground, rendering it perfectly safe to drive over the roughest places. By the most simple movement, the distribution of seed can be stopped in an instant, or continued with the same ease. All the injury the drill can sustain by coming in contact with roots or fast stones, is the breaking of a small wooden peg, which is easily replaced. The machine is so contrived, that by a very simple movement, the interior work is exposed to view, and at all times, the grain, while passing into the drills, is in full view of the operator, so that he can detect at a glance, any stoppage of the grain, and at once remedy it."

For further particulars, see advertisement in this number.

SUFFOLK AND MIDDLESEX PIGS.—Mr. WM. STICKNEY, of Boston, informs us that he has lately received from England a boar of the Suffolk breed, and one of the Middlesex breed. These, in addition to his other swine, of the same breeds, will give a very superior stock. The pork of these breeds is much liked at Boston.

The Farmer's Note-Book.

Manufacture of Cheese.

EDS. CULTIVATOR—Having been so frequently addressed by different persons in this and other states upon the subject of dairying, that to reply to each individually, would be quite inconvenient and burthensome, I propose answering some of the most important questions generally asked by new beginners, through the columns of your widely circulated paper,—hoping they will reach every person who deems *book farming* of sufficient importance to take an agricultural paper. At the low rate that such papers are now afforded, those who do not take one, have a poor excuse for begging information of their neighbors, to keep pace with the present tide of improvement.

"What kind of cows are most profitable in a dairy?"

It depends much upon location. If a dairyman is remote from a good grain market, where the coarser grains would bear a better profit fed to milch cows than to market otherwise, his selection should be of deep milkers, that will bear grain feed without accumulating too much flesh. If near a good beef market, where beef is worth nearly as much per hundred as cheese, look well to the size and thrift of a cow, so that if she is not a deep milker, she will turn well for beef. As a general rule, those are most profitable that are deep milkers, and will hold out a good flow of milk through the season, keep in good condition, and are quiet and gentle. He who cannot furnish plenty of good feed, should beware of such cows as have been highly fed, or his profits will be small.

"What is the best age of a cow?"

From five to ten years old. I have no objection to a cow ten years old, for a season. She will consume more feed than a younger one, but her milk is richer till she begins to decline in condition, and lose strength and vigor.

"What is the most congenial feed for cows immediately before and after calving?"

Plenty of good tender hay or grass, and a small quantity, *daily*, of such other food as is best calculated to loosen the bowels and nourish the system, without

creating a fever in the secretive organs. Wheat bran, oat meal, potatoes, or other roots, are deemed best for that purpose. If a cow is in high flesh, a mild bleeding from the neck, with half a pound of salts, fed in a mash, previous to calving, is good.

"What quantity of grain will a cow bear feeding, profitably, and should the kind be varied, at different periods, during the milking season?"

All cows will not bear feeding alike. Some not being deep milkers, would acquire too much flesh, and shrink in milk, with the same amount of feed that others would turn to profit in milk. Hence the necessity of feeding *separately*, with close observation in regard to the constitution and capacity of different cows. A man's observation in his own practice, is generally the best test in this matter. I have long since abandoned the practice of heavy feeding before and immediately after calving. Two quarts of corn or barley meal, or four of oat meal, or six quarts of wheat bran, may be safely fed, daily, to each cow. While kept to hay, grain feed should be made into slop, and fermented before feeding. The profit of feeding grain more, or longer than to bring cows to grass healthy and strong, would depend upon the comparative value of the feed with that of the product. Nothing can be fed to a cow that will increase the quantity of her milk from plenty of good grass. The only gain in feeding slop and grain during flush of feed, is by enriching the milk and retaining the cows' appetite for it when grass fails. When first turned to grass, cows are apt to scour, and shrink in milk. Dry wheat bran, or cob meal, will then be better than slop feed. Barley and corn meal, are too cathartic to feed in large quantities while the cows are at grass.

"Can all dairymen make it profitable to grow corn, sown broadcast or otherwise, to feed to milch cows?"

Where the soil is strong enough to bear a large burden without manuring too highly, it will bear a profit, as it is the best feed that can be given to keep up the flow of milk between early and fall feed. But where the soil needs much manure, it is not good policy to manure highly a small piece of ground to obtain a large crop of any kind, to the neglect of other important crops. In other words, the dairyman would receive a greater benefit, in a long run, from distributing one hundred loads of manure on ten acres of meadow land, after harvest, or putting on that amount with the seed when stocking down for meadow, than by putting it on one or two acres to grow corn, to feed cows in summer. A small feeding of corn daily, will take the appetite from grass with little or no benefit. I have found it best to feed plentifully at evening only.

"What is the best mode of heating milk and scalding curd?"

That which will produce the most perfect equilibrium of heat through the whole mass, with the least exposure to excess of heat. A smaller vessel containing the milk or curd with whey, set into a larger vessel which contains water, through which heat is conveyed to the vessel containing the milk or whey, is the safest mode, and is now generally practiced here. The more water there is in the larger vessel, the more uniform heat is conveyed to the milk. If a large tin vat is used, set into a wooden box or vat, the tube attached to one end of the tin vat, and extending down through the bottom of the wood vat, to discharge the whey when the curd is sufficiently scalded, should be large enough to let off the whey at once, or the curd will settle or pack together, and require much hard labor, and will waste, by friction, in separating it and making it fine enough to drain and salt properly. A vat for thirty or more cows, should have a tube at least two inches in diameter, and the tin cylinder, with a tube at one end, to fit snug into the tube carrying off the whey, should be as high as the

vat, and four or five inches in diameter; with as many very small holes punched in it as can be and hold together, in order to strain the whey from the curd as fast as it will pass off through the tube.

"Why would it not answer as well to pass steam directly into the milk or whey and curd, as it would save expense in fixtures?"

Because that portion coming in contact with steam, would be exposed to an excess of heat, and would not be affected by rennet like other portions which were not overheated. Consequently, a strict affinity would not be maintained, which is necessary for a perfect coherency; and more or less would float off with the whey, or make trouble in curing the cheese.

"Is a thermometer a sufficient guide in making cheese?"

A thermometer *that is correct*, is an indispensable guide in measuring the amount of heat to be used; but the time of raising the heat and continuing its effect, must be varied to meet contingent circumstances. A. L. FISH. (To be continued.)

Improved Picket Fence.

EDS. CULTIVATOR—In many sections of our country, the scarcity of fencing timber is beginning to be severely felt, which makes it necessary to economise our materials to the best advantage.

I am building a field picket fence on a plan which for ornament, cheapness and durability, and the facility with which it may be removed, where the farmer wishes to alter the lines of his fields, may be well recommended in preference to any other wood fence,—requiring only half the number of posts necessary for the common board fence.

In the first place, two benches are prepared about 3 feet high, and placed about eight feet apart, for the purpose of supporting the scantling, while the pickets are being nailed on. Two scantling, sawed two inches by four, twelve or thirteen feet long, are then laid on the benches, where should be fixtures to keep them to their places. A scantling is also laid on for the upper ends of the pickets to rest against while nailing, in order to bring them in line. The pickets are then nailed on with ten-penny nails, two nails to each picket, projecting over the scantling, above and below, about eight inches; the pickets to be sawed in the mill from three to four inches wide, and then cut across into three lengths, if the strips are twelve or thirteen feet long, and for field fence, nailed on with a spacing board of five or six inches.

The posts are then, if for wet land, well sharpened and driven down with a maul. A five-quarter hole is then bored through the post at a suitable height from the ground for the underside of the upper scantling, and a pin of white oak, or other suitable timber, is driven through the post, having a head or projection at the end on the upper side, sufficient to hold the lapped ends of the lengths as they meet on the posts. The lengths of fence prepared as aforesaid, are then taken up, and with a six inch lap, hung or laid on the pins, and a stone rolled against the fence, or a short stake driven down, is sufficient to confine the bottom. In dry ground the posts should be slightly sharpened and set in the usual way.

The advantages of this fence over the common board fence are obvious. Posts in all moist lands, are subject to be raised by frost—some more and some less. In the spring the boards are found more or less split, and the nails broken, without the possibility of replacing the posts by driving them down; but should the posts of a fence built on the above plan become raised, they can, in the spring, while the ground is soft, be very easily driven down, as the weight of the fence only

rests on the pins above described. If the posts should decay and rot off by the ground, they may be replaced by new ones, while the lengths of fence, if constructed of oak, hemlock or chestnut, will last good from fifteen to twenty years. A length is easily removed for the purpose of passing a team, and as easily replaced again.

It must prove a light and convenient fence for swamps and marshy grounds, also for river flats, which are subject to be swept by floods in spring. The lengths being light, may be taken off the hooks in the fall, and be deposited on a bank in a place of safety and readily replaced after the spring freshets. The pickets may be nailed on, and the lengths prepared, before they are taken to the field, and iron hooks may be substituted for wood to good profit. The farmer who procures his material and erects his first fifty lengths of the improved picket fence, will not, if he studies economy, very soon be seen making old fashioned board fence. DAVID SILL. *North Argyle, Washington Co., N. Y., March 29, 1849.*

Cement for Cellars.

EDS. CULTIVATOR—What is the best mode of rendering a wet cellar dry, that cannot conveniently be drained? I pounded stone all over the bottom, and then plastered it with water lime, made by R. H. Bangs, Fayetteville, N. Y. It was very dry till there came a heavy rain, and then it was full of water, or even with the surface of the ground which is but 18 inches above the bottom of the cellar. It broke the cement, lifted it up, and cracked it in pieces. It seemed to soften when the water came to it, and did not adhere to the stone, on the bottom. I think the lime was not good, or it may be we did not mix it right. How should it be mixed? What proportion of the purest lake sand is to be mixed? Should any quick lime be mixed with it? Is there danger of frost injuring it when *fully set*, when there is no water upon it? Can a cement be made of tar and sand, that will resist the water? We labor under a great disadvantage in this country, for the want of cellars. The land is so level that we cannot dig, because we cannot drain. I was induced to dig one and a-half feet, thinking to stop out the water with water lime, but so far it has failed; and several others in this county, prepared in the same way last summer, failed. Some find fault with the lime, and some think it cannot be done. Have any of your subscribers tried it, and how have they succeeded? Where can the best warranted cement be had?

A good cellar is everything to the farmer, and any method to render them water proof, will be valuable information to any and all of your subscribers here. A. J. KEENEY. *Erie, Mich., F.b. 22, 1849.*

Turning in Green Crops.

The stage at which crops turned into the soil would be of the greatest value as manure, is a point of considerable importance. Heretofore it has been a common opinion that plants produced the most beneficial results in this respect, when they had attained their greatest bulk and weight, and before there had been any diminution from drying or ripening. Several experiments however, seem to show that where a large bulk of green vegetable matter is placed in the soil, the sap runs into the acetous fermentation—producing an acid injurious to growing crops.

ANDREW NICHOLS, of Danvers, Mass., states to the officers of the Essex County Ag. Society, that he cut a crop of corn fodder in the month of September, and had it carefully buried in the soil by the plow. The result, he says, "was no benefit to the land, the loss of the crop plowed in, and half the crop of corn planted thereon the succeeding year." He accounts for these facts

on the following theory: "The stalks had fermented, and been converted chiefly into alcohol and vinegar—the former flying off by evaporation, and the latter uniting with the alkaline or ferruginous earths—forming salts less fertilizing perhaps, than their bases, as they existed in the soil previous to their uniting with the acid."

We have heard of similar results from plowing in green clover, buckwheat and grass. Hence, better effects follow from allowing the crop to become so dry before plowing it in, that the acetous fermentation will not take place. We believe this is the conclusion now held by some of our best farmers who are in the habit of plowing in clover.

Cost of Wire Fence.

EDS. CULTIVATOR—I thought that it possibly might be of service to the farming community, through the pages of *The Cultivator*, to say a few words on wire fence. Much has already been said and done in regard to all kinds of fencing; but I think the wire kind is by far the cheapest as well as most beautiful. I ran a fence, 340 yards, across a 40 acre lot. My object was to make a strong, as well as a cheap fence. The wire I used was No. 9 and No. 7. No. 10 is too small. The fence is five strands high—each strand about 10 inches apart. The fence is five feet high. The expense is as follows:

310 lbs. wire, Nos. 7 and 9, at 8 cents,.....	\$24 80
28 Red Cedar posts, at 12½ cents,.....	3 50
28 do do small, at 6½ cents,.....	1 75
To 3 men 2 days putting up fence, at 50 cts. and found, (say 25 cents a-piece,)	4 50
	\$34 55

I placed a small post between every two large ones. The holes in the posts, (5 in each post,) I bored with an inch auger. After the wire was put in and tightened, I drove a plug in, to prevent the rain from rusting the wire. After the fence was up, I took about a pint of tar, and with a brush dipped in tar, coated all the wire.

The posts of the fence are 20 feet apart, which I find not too much. H. V. L. *Port Penn, Del., March, 1849.*

Cost of Fattening Pork in Massachusetts.

F. DODGE, of Danvers, Mass., states that in the spring of 1848, he bought from a drove, seven shoats, the total weight of which was 925 pounds. The price paid for them was seven cents per pound. They were fed an average of 184 days, and their average gain was 179 pounds of nett pork. The cost of the food they consumed was as follows:

68 bushels corn at 53 cents,.....	\$36 04
30 do do damaged, at 35 cents,.....	10 50
50 do corn at 65 cents,.....	32 50
8 do meal, at 65 cents,.....	5 20

\$84 24

Add first cost of pigs,..... 64 75

Making a total cost of,..... \$148 99

The whole quantity of pork afforded by the pigs killed, was 2178 pounds, which was sold at 6½ cents per pound, amounting to \$141.57—leaving a balance against the pigs of \$7.42. The inference from this statement, is that at the above prices of grain, pork could not be profitably produced at six and a-half cents per pound. But it is suggested that something might be saved by breeding the stock, instead of purchasing shoats at seven cents per pound, live weight. It is thought, however, that the manure afforded by the hogs, would be of sufficient value to more than overbalance any deficiency which might appear in the account by only crediting the pork.

Profitable Cultivation.

The Middlesex (Mass.) Agricultural Society, awarded their first premium on farms to that of GEORGE PIERCE, of West-Cambridge. This farm consists of only forty acres. It is devoted to the cultivation of vegetables and fruits for the Boston market. In addition to the ordinary articles of the kitchen garden, it is mentioned that about three acres of ground are devoted to *dandelions*, which it is said "afford a rich return for the labor and expense of cultivation." A large portion of the farm produces three crops in a season—"first, radishes and early peas—second, potatoes and cucumbers—and next, celery, cabbages, &c. The following is the statement of the expenses and the value of the produce, as given to the committee who examined the farm:

Hands employed from April to October, at an average of \$16 per month,.....	\$672 00
Labor paid by the day,.....	80 00
Board of men at \$10 per month,.....	420 00
Night soil from ten vaults,.....	30 00
Manure from one stable in Boston,.....	400 00
Teaming the same,.....	300 00
Manure from one stable in Charlestown, the produce of 44 horses, at \$10 per horse, delivered on the farm,....	440 00
Manure from Porter's stable in Cambridge, 30 cords at \$5.50 per cord,.....	165 00
	<hr/>
	\$2,507 00
Proceeds of sales from March 3d to September 23d, as rendered by the market men, of which a daily account is kept,.....	\$4,544 79
	<hr/>
	\$2,037 79

Showing a balance of \$2,037.79 in favor of the farm, exclusive of the crops on the land on the 23d of September, which the committee say, are "probably worth as much more."

Successful Cultivation.

EDS. CULTIVATOR—Twenty-nine years ago, my father came to this place and bought 76 acres of land on credit, with not a stick chopped on it. He has cleared and fenced about sixty acres with his own hands, and has built a good house, barn and out buildings, and cleared himself from all incumbrance.

When I sent for the first *Cultivator*, my father thought I had better keep my dollar. When the year was out, he said if I sent again, he would send also, and since then we have read your valuable paper with interest, and I trust with profit.

Fruit being my favorite crop, and having a good location, I have tried it a little. The last two years, I followed *The Cultivator* as far as it went, and then I got Downing's Fruits and Fruit Trees of America. I have had excellent success in the raising of trees, shrubs, bushes, vines, &c. I have now growing, 47 varieties of peaches, 16 of apples, 22 of plums, 7 of cherries, 7 of apricots, 3 of quinces, 5 of currants, 3 of gooseberries, 7 of grapes. A good many of these varieties are on trial to test their qualities in this climate. The soil on which my trees grow is a strong clay loam. I have a patch of 90 seedling peach trees, six years old, three years in bearing. The fruit has been tried with budded peaches from Cleveland, and pronounced equal in size, and superior in flavor. The cause I suppose, is in the soil. The soil of Cleveland is clear sand, mine is strong yellow clay loam. I intend to settle the question another year whether the soil has any effect on the flavor of the peach. Downing states that peach trees should be shortened-in half of their growth. I only cut about one-third, as my trees are very thrifty. If I cut more, they make too great a growth of wood. Some of them have produced limbs five feet long the past season.

In conclusion, I would say that with all my trees, and bushes and flowers, I can get time to read *The Cultivator*. I am frequently asked—"what makes your trees so thrifty—how do you keep them so straight? I

can't make mine grow so?" My answer is, I take *THE CULTIVATOR*.

In June last, I whitewashed all our out houses, according to the receipt in vol. ii. p. 291 of *The Cultivator*. A great many have asked for a receipt, which I give, at the same time taking occasion to remark, that if they would take *The Cultivator* they would get all of these things gratis. SELDEN H. REED. Vienna, Trumbull Co., Ohio, Jan., 1849.

Advantages of Railroads to Farmers.

There has been bought at this place, by men from New York and Boston, from Nov. 18, 1848, to Jan. 18, 1849, two months, 4398 dressed hogs, weighing 1,139,522 pounds—making 56 tons, 1,522 lbs., which at the average price of \$5 per hundred pounds, amounts to the sum of \$56,966.10. They have also bought 15 tons of poultry, at seven cents a pound,—making \$2,100 paid for this article. This shows a gross amount paid out in this city, by eastern men, of \$59,066.10, for articles produced in this county. This arises from allowing the railroad to carry freight. There is about 300 head feeding here for the eastern market. This pork, beef and poultry business will continue to increase from year to year—there is no knowing to what extent. JOHN B. DILL. Auburn, N. Y., Jan., 1849.

Information Wanted.

EDS. CULTIVATOR—We frequently see it stated in northern papers that free labor is more profitable than slave, and that if southern people were to liberate their slaves they would be more prosperous and happy. As happiness and prosperity are objects which most of us wish to attain, I write to elicit information upon the subject, from some of your numerous and intelligent contributors who use free labor; which would not only be acceptable to myself, but to most southern agriculturists. I will state my own case, with some inquiries, which I hope will be answered, and such other information may be given on the subject as may suggest itself.

I hold about 1200 acres of land, two-thirds of which is cleared and arable, the balance in timber. About one-half of the cleared land is in good heart; the other quite thin, but affords grazing for sheep. The land is well adapted to corn, oats, grass, and with a favorable season, produces good wheat. It is sufficiently undulating, with upwards of 100 acres of low grounds, most of which is good meadow land.

I have between 60 and 70 persons to support, most of whom are slaves, and about two-thirds of them too young to support themselves; consequently, the other third has to support them and do all the work of the farm. My expenses are about \$2,000 per year; my income but little more; with a great deal of trouble, vexation and solicitude on account of my dependants. For my duty, as well as my inclination and interest, require that they should be well clothed and fed, and have proper attendance in sickness, which must necessarily cause much trouble and anxiety.

Now, if it can be proved to me that my condition as well as theirs, is to be benefited by getting rid of them, in the name of common sense, I ask who would hesitate? Is it not the dictate of wisdom, of interest, of every consideration, yes, of humanity itself? But how is this to be accomplished without greatly diminishing my income, which is now scarcely sufficient to support a growing family? I will not dispose of any of my lands. How am I to obtain labor to keep up about 15 miles of fencing, and to cultivate or graze my farm to advantage? How many hands would be required? Would grazing stock for market, or cheese-making be

most profitable. At what price could the services of a northern man be obtained, who understands this business, to conduct it? And what would be the cost of the necessary fixtures, house, &c. for a cheese dairy? Any other information that the subject may suggest will be thankfully received. A SOUTHERNER. *Barboursville, Va., March, 1849.*

Sheep and Wool.

These have been at the lowest ebb for two or three years past. But a change is commencing, and these are having a steady, upright tendency—at least so it would seem. Some say it is only a mere spasm—that there is no real life in these staples—that they are dead—that wool-growing is so unprofitable that it must be abandoned—or driven to those portions of the country where wool may be grown at little cost. Within the past two years, it is thought that 1,000,000 of sheep have been killed in Vermont for their pelts and tallow. Some portions of that wool-growing state are now almost destitute of sheep, and dairies appear in their stead. So of the Western Reserve in Ohio. So of many other portions of the country.

Now what is the truth on this subject? Will some of your subscribers give us their views? Shall I be able to determine how to employ a little spare capital as a farmer? Shall I invest in sheep or in cows? and will some one inform me, what the north and east are to rely on? Can northern farmers grow wool profitably?—Or is there greater profit to be derived from dairy products. My opinion is not made up on the subject. Certain it is that wool-growing has been profitable. It is equally certain that it has been a poor business—and now, another change is taking place. Many a man wishes to know what to do. Will some one tell us? L. B. G.

Lime and Charcoal for Potatoes.

EDS. CULTIVATOR—I send you the following experiment, showing the comparative effect of powdered charcoal and lime in raising potatoes, &c.

May 10, 1848—I planted Early Searcity potatoes, in drills, three feet apart, made with a common plow. I scattered a moderate quantity of well rotted manure in all the drills. I then took seven rows for experiment, which was as follows: On the 24th August, I measured off 30 feet of each row, parallel to each other, and weighed the product of each, which I give below:

Row.		Weight.
1.	A sprinkling of lime on the seed,	26½ lbs.
2.	No lime or charcoal,	30
3.	A dressing of powdered charcoal,	34
4.	do do	35
5.	do lime,	33½
6.	do do	32½
7.	do powdered charcoal,	35½

The result shows that charcoal dust, in every case, gave a larger yield than lime, but does not prove that lime was of any advantage to the crop, although not conclusive, as there was but one row without lime or charcoal. The experiment does not show any extraordinary effect of the charcoal; but I am of the opinion that the effect of this fertilizer will be more enduring than any other manure, and on that account I consider it valuable. The charcoal I get from a forge near by, it being the dust remaining about the coal-house. The soil on which the trial was made was a sandy loam. All the tubers were sound, although the vines were slightly effected with the prevailing disease.

It is my practice to dig my potatoes early, and if possible in good weather, and spread them in a dry, cool, and airy outhouse, where they remain until it is necessary to protect them from frost, when they are removed to the cellar. When treated in this manner, I have never had any rot in my cellar. One of my neighbors

dug his potatoes about the same time that I did; he had no rot in the field, and put them directly into his cellar in good order. Early in January he told me that he had lost nearly all, by the dry rot. Many others have lost more or less potatoes by rotting in the cellar. I think my way of digging early, and putting into the cellar late, after the weather has become cold, will ensure their safety. JOHN W. BAILEY. *Plattsburgh, N. Y., February, 1849.*

Importance of a Good Market.

To the farmer, a good market is next in importance to good cultivation, and you may think it of sufficient importance to your readers to note the change the construction of the New-York and Erie Railroad is now making, and destined to effect, in the kind of produce and manner of marketing, for a large portion of this State.

That road was open to Binghamton the fore part of the past winter; its first visible effect upon the price and new demand created in this section, was noticed by a large collection of turkeys, geese and chickens, made by a man from the east, an advance of twenty-five cts. per pair on turkeys. They were carried some sixty miles to Binghamton, and taken through alive. Large quantities of fresh pork have passed here from Steuben, Yates and Ontario counties, for New York by that road, as also, butter, lard, &c. Fat cattle have been bought in this region, and sent through on the road. The Hon. A. B. Dickinson, of Steuben, alone sends thirty head each week. Fat sheep are now being collected near here, to be sent by railroad.

Now all this appears new to us, and we discover that our whole system of doing business is to be changed, as well our overplus material, as our route and manner of reaching market.

Heretofore, about the only articles we sent to the sea board, were cattle, mostly lean, driven over a long road. Driving would reduce the flesh, if the cattle were good beef when started. Wheat, butter and wool, were sent only during the season of canal navigation.

The Erie road will be completed to Elmira in November next, and the Chemung road, to Seneca lake, which will not only give the southern tier the advantages of a new and quick market, but open a new channel for the large surplus products of the lake country.

I here predict that the city of New York will find, when it has this fertile region, the Lake Country in Western New York, to supply her market and tables during winter, that its capacity to furnish, far exceeds any section heretofore accessible.

Heretofore, our fat cattle and sheep, pigs, poultry, eggs, fresh butter, fruit, &c., have been low, compared with the price in New York. This new avenue to market will equalize prices. In marketing our pork, heavy hogs would command the highest price per pound; now the young and light, to consume fresh, are most valuable, while they cost less; because fed less grain. Heretofore, we have kept our steers three and four years—sent them east, where the farmers have fed them six to ten months, and realised, by being near market, as much as we. After this, we shall put on the flesh ourselves, and realise more nearly the city price.

This road will open a fine field for those disposed to cultivate fruit for market. The soil and climate about these lakes, will unquestionably produce as fine, if not better fruit, than any other part of the state. It is also less liable to be cut off by frost. Much farming land has changed hands at an advanced price, during this winter, within eight or ten miles of this new thoroughfare. These improvements will enhance the value of the land through which they pass, for capital must pay a higher per centage in the interior, at present prices, than near the city.

Before the Erie canal was built, the farmers east, depended upon selling rye and corn, and feared the introduction of western wheat would ruin them; but instead of being injured, they bought their own bread, and made more money than before by selling beef, butter, eggs, &c. E. C. FROST. *Seneca Lake Highland Nurseries, Catharine, March, 1849.*

Weaning Calves.

EDS. CULTIVATOR—The practice of weaning calves, which has been handed down from time immemorial, by separating them from their mothers, is almost invariably attended with a vast deal of *bellowing*, by both cow and calf; and not unfrequently it is the case, that calves, in a very thrifty condition, when taken from the cow, refuse to eat a morsel of grass,—but keep up an incessant bellowing, and continue to pine away until they can scarcely make a loud noise, or move about. I have seen calves, many times, taken from their mothers in full flesh, and growing rapidly, and immediately stop growing, become poor, and very much *emaciated*, simply because the proper course is not pursued, with regard to so important a branch of cattle husbandry.

If such a course of management were denounced as not only *unwise*, but exceedingly detrimental to young animals, "*and as a relic of barbarism*," it might be done, in our humble opinion, without any apprehensions of incurring the odium of a calumniator. Such a course appears, upon reflection, contrary to the dictates of nature and of reason. And besides all this, who, that possesses any sympathy—any of the tender feelings of humanity, toward the brute creation—can listen to such mournful loosing, as is generally heard from calves, and remain unmoved? Should I raise a thousand calves, I never would resort, save through dire necessity, to the practice which is generally adopted, of weaning them by separating them from their mothers; for it is not only *inhuman*, but most *miserable economy*.

When calves have arrived at an age suitable for weaning, it is taken for granted, that they are then in a growing and thrifty condition; and it is, or ought to be, the desire of every one who raises stock, to keep his young animals *advancing*: for it requires one-third more feed to regain a pound of flesh, which an animal has lost, than would have done to produce that flesh, providing it had never been suffered to grow poor.

The mode of weaning calves, which I would advocate as being the most proper, the best and *economical*, and which I have practiced for two years past, with perfect success, I shall give in a few words;—and let those farmers who have been in the habit of separating their calves from their mothers, for the purpose of weaning them, try the experiment, the ensuing season, with one calf, and then cast the arguments, for and against such a course, into the balance of "*common sense*," and see which will preponderate.

After the calves have sucked about six weeks, I keep them, if possible, in fresh and tender pasture, and diminish from day to day, their usual allowance. By pursuing this course for one week, the calf will learn to eat grass enough to supply the place of milk which has been withheld. During the next week, I let him have a certain allowance, once in *two* days. The next week, once in *three* days. I then put on them a leather halter, with eight or ten *tenpenny* nails, with sharp points, driven through the nose piece, pointing outwards from the nose of the calf. The inside of the nose piece should have a piece of thin leather sowed to it, covering the heads of the nails, in order to prevent their hurting the calf's nose.

The calf is then turned into the same field with its mother;—and as we naturally suppose, it makes every

effort to suck. But the cow feeling the prick of the nails against her udder, quickly whirls about, and repels the little fellow. After a few unsuccessful attempts, it will "*give up the chase*," and feed quietly by the side of its mother.

This practice with regard to weaning calves, possesses several commendable advantages when compared with the common practice of separating them from the cows.

When calves are weaned by the side of their mothers they are always more docile and tame—they learn to feed sooner—they learn to be driven sooner—they thrive much better—they do not utter such pitiful moanings, as when alone;—and by the side of their mothers, they pass their time in quiet rumination and rest.

Calves always *need*, and *should have* the best pasture which the farm affords. But it not unfrequently occurs, that the field which we would appropriate to the calves, contains twice as much feed as is needful for them. Now, if the calves are weaned by the side of their mothers, the cows are allowed to go into the same field; and eat the grass which, under other circumstances, would have been of no profit, save as a fertilizer of the soil.

Another consideration worthy of notice is, when calves are weaned by separating them from their mothers, special care must be taken to *keep* them separated during the winter; and many times it becomes necessary to make an *extra yard* and an *extra shed*; whereas, if they had been weaned, after the mode recommended, they might be allowed to remain in the same enclosure, during the day—but at night, should be stabled.

Farmers, who raise but a few head of cattle, as is the case with myself, experience great inconvenience, by being obliged to keep their cows and calves separate when they turn them from their stalls to go to water, or to exercise.

I have practiced weaning calves with the halter, for two seasons past, with *perfect success*; and although my calves, both seasons, lost the halter from their head, before they had worn it a week, they never, after the first day when they were turned together, made any attempts to suck.

Perhaps some may think, as I at first did, that *shingle* nails in the nose piece, would subserve a better purpose than *ten-penny* nails—but they are *too short*. I have tried both kinds; and I find that long nails *only* will answer a good purpose. S. EDWARDS TODD. *Lake Ridge, Tompkins Co., N. Y., March, 1849.*

Potatoes Exhaust the Soil.

EDS. CULTIVATOR—I was taught when a boy that potatoes were not an exhausting crop, drawing but little strength from the ground. I have always taken this for granted, and I have made no experiment on the subject; more than to satisfy myself that they would not succeed well a second year on the same ground. If you should conclude that I have been indiscreet in taking any thing for granted and passing on forty years without examination, I could not find much fault with your conclusion. But to the subject. In the summer of 1847, a neighboring farmer requested me to go into his lot and look at his clover. On reaching his lot, he showed me a field of clover, one part of which was of a vigorous growth, while the other part was small—not more than half, if more than a third as large as the other, and the line distinctly marked through the lot. The clover was sown with oats the previous year. The year before that, my friend informed me, that the part of the field where the clover was best, was planted with corn; while the other part was devoted to potatoes. The whole, he said, was manured and cultiva-

ted just alike, and the clover was sown on all at the same time and from the same parcel of seed. Here was a thing so different from all my former notions, that I began to think I had, all my life, been laboring under a mistake.

I had several times had corn on a part of the field and potatoes on the other part; and had noticed that the subsequent grass crop was much the best where the corn had grown; but so deep was the impression that corn was a greater exhauster than potatoes, that I attributed the difference in the grass to other causes. At the time my attention was turned to my neighbor's clover, I had a piece of ground, which was seeded with grass, the previous summer with oats, after a crop of potatoes. The ground was well manured for the potatoes, and had previously borne large grass crops. I was much disappointed with the grass crop on this piece, and after mowing a very light crop two seasons, I last summer, turned in the sward and sowed grass seed—whether this will improve the crop of grass remains to be seen. Will some of your correspondents, who have made observations, enlighten us on this subject? R. R. P. *Manchester, Ct., Feb. 15, 1849.*

Draining Land.

EDS. CULTIVATOR—I have received many letters of late, making inquiries respecting draining. The following are generally the questions:—1st. How far do you put your drains apart, and how deep? 2d. Where can tile be got, and at what price per 1000 or rod?—Do they not break with frost?

In answer to the first question, no man can tell how deep or how far apart the drains ought to be, until he has made some on his farm, and then experience alone must direct him. It is of no use to go deeper than the water lies, if that is deep enough to prevent horses or cattle from breaking the tiles. I think they should never be less than twenty inches deep,—mine are $2\frac{1}{4}$ ft. deep. The distance apart must be determined by the subsoil; if porous, they will admit of a greater distance apart than if a stiff clay, unless there should be gravel under the subsoil; but the true way to lay out drains, is to lay them out as though the labor was costing nothing, because there is no danger of over draining; and no man after draining a field, and seeing that part of it has not got drains enough, can resist putting in more; and this is always done at more expense, and is seldom done as perfectly, as if done at first. *I speak from experience.*

In answer to the 2d inquiry, tiles can be got of Benjamin F. Whartenbury, Waterloo, Seneca Co. Three-inch tiles cost \$10 per 1000, and 13 tiles will make a rod. Mr. Delafield, of Oaklands Farm, near Geneva, has imported a tile machine, by which we expect to get them still lower.

3d. They never break by frost if they are thoroughly burned, but for the lower ends of drains those that are hard burnt should be selected.

I think the following are all the directions that can be given on paper about draining. 1st. To be sure to make a good outlet for your drains; without that, a great deal of labor will be lost. In the next place, if possible, reach the fountain head. The water almost always rises near or at the highest part of the field. Early in the spring is the best time to stake out drains. Another thing very important is, to have tiles large enough for the main drains. I have one main drain laid with six-inch tiles, and a part with 2 six-inch tiles, and I find I shall have a part of it to take up, and lay further with double tiles. Some of the other drains that run into the main drain, which I may call sub-mains, may often require large tiles or double small tiles. I advise to do draining perfectly where needed. It will pay almost any expense.

I have put in 5000 tiles this spring, and will have in 5000 more by 1st May. My expense now is, digging $2\frac{1}{2}$ feet drains, 15 cents per rod, tiles 13 cents per rod.

I find men can make better wages at my drains than at the public work. I can get them dug to any extent for 15 cents per rod, without board. I like to have them dug as narrow as they can be done, except some main or sub-main drains, in which I may lay double tiles.

JOHN JOHNSTON. *Near Geneva, April 7, 1849.*

Information Wanted.

EDS. CULTIVATOR—I should like to learn something respecting the character of that portion of country lying between the Blue Ridge and Alleghany mountains, in Virginia. Whether the country is generally level or hilly, and if it is well adapted to the raising of cattle; and if good farms of 150 to 200 acres, can be bought for reasonable sums. I have heard many conflicting reports about that country, and should like to hear its true character. Perhaps some of your subscribers from Pendleton, Bath, Rockbridge, and Greenbrier counties, will give information through the columns of *The Cultivator* respecting those counties. I should like, also, to obtain similar information in regard to the southern part of Kentucky. A SUBSCRIBER. *Perry, N. Y., March 16 1849.*

Wool-Growing in South Carolina.

EDS. CULTIVATOR—Having some thought of going into the wool-growing business, I now take the liberty of asking some questions about sheep-farming, which I hope will be answered. I know nothing of the business, as my questions will evince; but hope the desired information will be none the less freely communicated on that account.

What is the average cost of good Merino sheep, and what is the annual income per head? Or what is the common calculation among northern farmers on these two points? Are the sheep kept all the time in pasture, or are they turned into the woods or unenclosed mountains part of the time? There is a common belief here that sheep will not do well kept in the plantation, and farmers therefore, turn them into the woods in the summer. Does confining sheep to a particular place, cause them to be unhealthy, or are they so because the pasture gives out, and the sheep dwindle from starvation? In other words, will a sheep keep healthy a whole year on the same acre of land, provided it has plenty that is good and wholesome to eat and to drink?

How many months have the sheep to be fed, and how many can they live on pasture? Are they fed on grain, and if so, what kind, and how much? It is a common opinion here, that grain, particularly Indian corn, makes sheep shed their wool. Is this true? or do our sheep shed their wool from being fed freely on grain, immediately after they have been nearly famished by neglect? Most animals shed when thriving rapidly. On this account, as well as to make the wool grow as even as possible, is it not important that sheep be kept as uniformly as possible, so as to keep them always, as nearly as may be, in the same condition? How many sheep can one hand attend during the winter, and what would the manure of a hundred sheep be worth a month, if well littered?

What kind of sheep are considered most profitable? What kind or kinds of grass make the best sheep pasture, and what the best hay for sheep? If sheep are sent into the mountains with a shepherd, what is his wages, and how many sheep can he attend? How often should sheep have salt in the summer time, and how often in winter? Don't sheep, like all other ani-

mals, pay better *when well fed* and well cared for, than by the reverse policy?

I am aware that the answers to many of the above questions, depend much upon contingences and circumstances. What I seek, is such information as will enable me to understand the general philosophy of wool growing, and enable me to make calculations approximating the truth before I commence. And all such, whether from you or others, will be thankfully received. C. Greenville C. H., South Carolina, March 2, 1849.

Our correspondent will find much information in regard to the subjects of his inquiries, in Mr. PETTIBONE'S communication, published in our April number. We should be pleased to receive further remarks from those who are or have been engaged in sheep-husbandry. EDS.

Stall-feeding Cattle in Virginia.

EDS. CULTIVATOR—The farmers of our county have in the last three years, commenced feeding cattle for the winter and spring markets, and our success so far is very flattering. Our sales this year range from \$7 to \$8.25 per hundred; and notwithstanding the very high prices paid for stock last fall, we have sold in this way, our grain at high prices, and been paid well for the trouble of feeding. I suppose about 1200 head were fed this winter within 10 miles of Charlottesville, and I have but little doubt, with a good corn crop, the number will be doubled next year. Most of these cattle are fed in close houses, and the greatest attention is paid to making and saving manure. Under this system—and dispensing with the tobacco crop, we hope in a few years to bring our lands to their original degree of fertility, and make Albermarle what nature intended her to be, the garden-spot of Virginia. R. W. N. NO-LAND. Albermarle Co., Va., March 24, 1849.

Valuable Essay.

The Agricultural Society of Maryland, has lately awarded a prize to THOMAS S. PLEASANTS, Esq., of Petersburg, Va., for the best essay on the means for preventing the destruction of various crops, by birds, insects, &c. We have read this essay with much interest. Though brief, it contains many valuable observations, deserving the attention of farmers. Mr. P. takes the ground that insects are the enemies from which farmers suffer the greatest loss; and that the best means of preventing the ravages of many of these, is the *protection of birds*. He observes that "birds should be regarded as friends and not as enemies," and that "the indiscriminate massacre to which they are subjected cannot be too severely reprobated. If there are any exceptions, it is only in the case of hawks and owls, which not only prey upon other birds of inferior strength and activity, but are particularly destructive to domestic fowls. Though they sometimes feed on moles and mice, and even snakes, yet on the whole, no defence can be offered in their behalf."

Destruction of Moles.—Mr. P. states that he "has the authority of a highly respectable neighbor for stating that he has nearly destroyed the moles in the grounds around his house by occasionally dropping in their tracks bread pills containing a small quantity of arsenic—say a fourth or a half a grain to each hill. The Palma Christi bean also causes them to disappear; but whether they are repelled by its odor, or, which is more probable, whether they are destroyed by the coating of the seed, which is said to be poisonous, is not certainly known."

Indian Corn in England.

Much has been said and great expectations excited in regard to the export of Indian corn and meal from this country to Britain. The favor with which the article

has been received in the markets of that country, has been various, owing to the condition in which it has arrived there. Large quantities were at first sent over in *bulk* without any preparation by artificial drying. A large proportion of this was much injured by fermentation. Those acquainted with the transportation of Indian corn, know how difficult it is to bring it in its natural state, from the interior of our own country to the sea-board, without its heating and becoming musty and sour. The external coating of the grain, readily admits the absorption of moisture, which is soon followed by more or less decomposition.

To remedy these difficulties, kiln-drying, on various plans, was resorted to. Large quantities of meal from kiln-dried corn, have been exported. But this, in many instances, has not proved well. It has been injured in drying—has in some instances been *burnt*, and a portion of its nutritive properties destroyed.

For these reasons, the use of the article in England, either as food for man or beast, has been comparatively limited.

At a late meeting of the Council of the Royal Agricultural Society, this subject was spoken of by Mr. Keene. He advocated the culture in the southern counties of England, of a new and early variety of Indian corn, called "the Forty-day Maize," from its beginning to show its flower in about forty days from the time of planting. In the course of his remarks, Mr. K. alluded to the opposition of the laboring classes of England, to the use of Indian corn, which he thought was owing to the inferior quality of the grain. He had, he said, sought in vain in the London market for even a moderately fair sample of Indian corn flour. "It is all stoved and high-dried, to enable it to bear the voyage, and the 'life' is taken out of it, rendering it almost insensible to the action of yeast, and so charred, as it were, by the drying process, that it remains gritty and hard, resisting every kind of cooking, more particularly baking."

We should like to know what success has attended the export of corn or meal prepared on Mr. Stafford's plan of steam-drying. We have been inclined to believe that this process would obviate some of the objections above mentioned, and that it would accomplish the object of drying sufficiently for safe transportation, without injuriously affecting the grain. We have used meal which had passed through this process, and was more than a year old, which was nearly as good for all culinary purposes, as any meal we ever saw. The "life" is not "taken out of it," as is proved by the fact that grain which has been through the machine, will vegetate as well as that which has not.

Fence for Grounds liable to be Flooded.

Mr. GEORGE MYERS, of Upper Sandusky, Ohio, sends us the following description of a "flood fence," said to have been invented and patented by WM. MILLER, of Pennsylvania:

Take two posts, 7 inches square and 5½ ft. in length, sink them 3 feet in the ground, (leaving 2½ feet above ground,) wedge them firmly in with stones alone. In the side of each post, and 3 inches from the ground, a triangular mortise must be sunk, 2 inches in depth, 4 inches high and 5 inches wide. A shallow notch in the shape of a V must be cut in the tops of the posts. A rail corresponding at the ends with the shape of this notch, is to be laid on the tops of the posts. The lower rail is then to be fitted in the triangular mortise cut in the side of the posts. This is to be done by making the ends of that rail round, like to gudgeons, which are to be inserted into the mortise, each gudgeon about 2½ inches in diameter, and of any length that may please. This done, the frame of the fence is complete and ready for the boards to

be nailed up and down on the two rails. The boards should be about four feet long, and nailed on that side of the rails against which the water is likely to flow.

This being finished, the fence is also finished, and the benefit of it is this: When the flood strikes against it, even at a moderate height, the round gudgeons of the lower rail will slide up the sloping sides of the mortise in which they lie, and the upper rail will, in like manner, rise out of the notches on top of the posts, and the entire pannel fall flat upon the ground, secured and resting on the gudgeons of the lower rail, until the swollen stream has spent its force and flowed over it. When the swell of water has subsided, all that is to be done to restore the enclosure, is to lift up the fallen pannels, which will easily turn on the gudgeons as an axle, and the fence will be again as perfect and firm as when first erected.

A new variety of Potato from South America.

A friend of mine received three potatoes from Bogota, in New Grenada, last April. He planted them on the 27th of that month. The season proved rather too short for them, since, on the occurrence of our first autumnal frost, Sept. 27th, they were perfectly green, and covered with bright blue flowers. They were dug by my own hand, about the 10th of October. They presented a heavy foliage, and exhibited a length and strength of roots, and number of stolens without a parallel in my experience. The tubers were very numerous, about eighty in each hill, mostly very small, many of them not larger than hazle nuts, and apparently as hardy as the roots of a *Shrub Oak*.

My friend planted them in a moist, rich clay soil, in his garden. I think they would have ripened better in dryer and poorer soil. I look upon them as a valuable acquisition, not only because I hope they will gradually accommodate themselves to our soils and seasons, but also, and much more, because their seeds afford a promising source, whence we may hope to derive new and strong varieties of valuable potatoes for general cultivation. They afforded twenty-five ripe balls last year, each ball yielding about one hundred good seeds.

The friend who sent these potatoes from South America, said nothing about the character of them as cultivated *there*. As cultivated *here*, they are uneatable, and would seem to answer to the description of the *wild* potato, as noticed in books.

Both the tubers and the seed of this new variety will be planted with care the ensuing season. C. E. G. *Utica, Jan. 1849.*

New-York and Ohio Stock.

NEW-YORK vs. OHIO.—A paragraph has been published in several of the Ohio papers, under the head of "superiority of Ohio stock," stating that the cow which took "the first premium" at the New-York State Show, was purchased by a citizen of Ohio, and was offered at two county shows in that state, and "failed to take the premium." Now we do not know what cow was alluded to, but there is no evidence that she was considered the best offered at the last N. Y. state exhibition. The article conveys a wrong idea. The premiums on cows at Buffalo, were offered and paid under *six* different classes. Those for the first four on the list, viz., Durhams, Herefords, Devons, and Ayrshires, were of *equal amount*—\$25 for each of first premiums; the other two, for "native or mixed breeds," and for the "best *milk* cow," were \$20 each. These were exclusive of premiums offered on *fat* cows. From this it will be seen that no *one* cow could be properly said to have taken "the first premium," without specifying the class to which she belonged, inasmuch as there were *six* first premiums.

Notes for the Month.

COMMUNICATIONS have been received, since our last, from Wm. Carter, A Practical Farmer, Agricola, H. V. L., David Sill, J. C. J., Sam'l. James, S. O. Cross, L. G. Bingham, O. F. M., John Johnston, R. H. Drake, E. Halley, S. W. Johnson, I. Hildreth, Wm. Bacon.

BOOKS, PAMPHLETS, &c., have been received, since our last, as follows:—Report of the Com. of Ways and Means, on duties on imports, from Hon. E. B. HOLMES, M. C.—Elder's Cottage Garden of America, from the publishers, Moss & Brother, Philadelphia.—Scions of the Genetling and Bohanon apples, from LEWIS SANDERS, Esq., Kentucky.—Seeds of the "Hoo-Sung," from H. WENDELL, M. D.—Report of the Commissioners of the General Land Office for 1849, from the Commissioner, Hon. R. M. YOUNG.

AGRICULTURAL SCHOOL AND EXPERIMENTAL FARM.—We mentioned in our last that a bill had been introduced into the Legislature of this State, providing for the establishment of an Agricultural School and Experimental Farm. We are sorry to say that this bill did not pass the Senate. Subsequently, however, Mr CRISPELL, as chairman of the Committee on Agriculture for the Assembly, submitted a report in reference to this subject, to which was appended the following resolution, which was passed by both branches of the Legislature:

Resolved, (if the Senate concur,) That a board of eight commissioners, (one from each judicial district,) be appointed by the Governor, whose duty it shall be to meet at the city of Albany on the 16th day of May next, to mature a plan for the establishment of an Agricultural College and Experimental Farm, and prepare a statement of the probable expense of such an institution, and a detailed account of the course of studies and plan of operations recommended, to be delivered to the Governor on or before the first day of September next, to be by him submitted to the Legislature at its next session.

Under this resolution, the Governor has appointed the following gentlemen, to constitute the Board:

JOSEPH BLUNT, New-York, 1st District.

A. J. DOWNING, Orange county, 2d District.

JOHN P. BEEKMAN, Columbia co., 3d District.

SAMUEL CHEEVER, Saratoga co., 4th District.

EDMUND KIRBY, Jefferson co., 5th District.

ADRIAN LOTT, Chenango co., 6th District.

JAS. S. WADSWORTH, Livingston co., 7th District.

WM. RISLEY, Chautauque co., 8th District.

COST OF A LIME-KILN.—"A Subscriber" at Rutland, Vt., wishes to know what is the expense of putting up a lime-kiln; the kind of stone most proper for building it; the cost of filling; the kind of limestone which makes the best lime, the quantity of wood, and the labor required in burning, &c. We shall feel obliged if any of our correspondents will give the information.

THE HOME DEPARTMENT.—A bill for the establishment of a new department with this title, passed both houses of Congress at its last session. The department has been duly organized, and Hon. THOS. EWING, of Ohio, appointed secretary. We have not yet seen the bill, but we understand that the Home Department is to have the care of all matters relating to pensions, patents, public lands, Indian affairs and the census, and that the Secretary of this Department is to conduct such correspondence at home and abroad as shall tend to promote the improvement of agriculture, &c. We think this Department, under judicious management, will be of great importance to the industrial interests of the country.

THE GREYLOCK POTATO—We are indebted to Hon. A. FOOTE, of W'mstown, Mass., for a barrel of his new variety of potato, called the *Greylock*. They are well shaped and of good size. We have tried some for the table, and though they were evidently injured by exposure to the air, they were nearly equal to any other with which we are acquainted. We shall have them planted in such a way as to give them a fair trial. Mr. F. gives us the following account of their origin and habit of growth:—"It is an *accidental cross* between the Carter and Mercer,—taking the complexion of its *skin* from the *dark* color of the Mercer, and that of its *flesh* from the *whiteness* of the Carter. It is a vigorous grower, produces as well as the Peach Blow, [Western Red] and in texture and flavor is not excelled, in my opinion, by any known variety. Side by side, the last season, the tops of my Peach Blows were badly blighted, while those of my Greylocks remained in all their freshness. Time of ripening somewhat early, but not so early as that of the Mercer. Like all the finer varieties, it is subject (here,) to the 'potato disease,' but in a less degree than either of its parent varieties. Its origin is dated back four years."

EARLY POTATOES.—We have received from J. W. WHEELER, Esq., of Hyde Park, a sample of the *Kemp* variety of potatoes. We saw this kind growing on Mr. W.'s farm last summer, and were much pleased with its appearance. They are very early, being ten days earlier than the Mercers, and very vigorous growers. Mr. W. has raised this variety for two years, and has never seen a rotten one among them. Mr. Wheeler will please accept our thanks for the donation.

FINE BIRDS.—During a late visit at Bridgeport, Ct., we were much interested with the handsome collection of choice birds, of various species, belonging to Mr. GIDEON THOMPSON, of that place. He has the Chinese golden pheasant, the silver, and the English pheasant, prairie hens, wild geese and swans. He has been very successful in breeding the pheasants, for several years, and furnishes some interesting facts in regard to their habits. He informs us that the golden pheasant lays when one year old—usually about twelve eggs—and sits twenty-one days. The male acquires its full plumage in two years. The silver pheasant lays when two years old—lays the same number of eggs, and sits the same length of time as the former, and the male is the same time in acquiring full plumage. The English pheasant lays at one year old—from twelve to twenty-five eggs—sits *twenty-six* days, and the male gets its full plumage during the first year. Mr. T. finds it very easy to domesticate the golden and silver pheasants; and they appear to be perfectly contented in his yards. The English pheasant, on the contrary, is restless, and always manifests a desire to return to a wild state. He has succeeded in crossing the English pheasant and the common fowl, but has never obtained any produce from the hybrid stock. He has never obtained a cross between either the golden or the silver pheasant, and the common fowl. The pheasants make their nests in the sheds or houses where they roost. Mr. T. takes all their eggs away as fast as laid, and uses those of Bantam fowls for nest-eggs. The males of all the pheasant tribe are very beautiful, but the golden is one of the most splendid of all birds.

The prairie hens before spoken of, have not yet bred.

Mr. T. has kept wild geese for several years, and has bred hundreds; but he states that until this year, he never had one lay before it was four years old. One has this spring, laid, that is but three years old.

The swans are of the mute species, (*Cygnus olor*), are majestic birds, but have never bred.

These rare birds, with choice kinds of domestic fowls, African and Chinese geese, and several beautiful

deer, not only promote the pleasure of the liberal owner, but being at all times to be seen, are objects of curiosity to the public, and are really ornamental to the town.

OLD CHEESE.—By the politeness of E. P. PRENTICE, Esq., we have received a sample of cheese, *twelve years old*. This cheese was made in Otsego county in 1837, and has been kept in a tin case which wholly excluded the air. It was perfectly sound when taken out, a few weeks since, and is equal, in all the qualities which constitute excellence in "old cheese" to any we have ever seen.

CLEANING CIDER BARRELS.—A correspondent (B. C. M.) at Sangerfield, N. Y., writes—"In rinsing out cider barrels and other casks, put in two or three trace chains. Shake them well and you will soon have a clean cask."

FARMERS CLUBS.—We understand that an "Agricultural and Mechanical Club" has been formed in the town of Auburn, the object of which is the free discussion of all subjects pertaining to the interests of mechanics and agriculturists. The officers are John Gaylord, President; Wm. Woods, Vice President; C. Ferris, Secretary; Joseph Swift, Treasurer. The association is considered an auxiliary to the Cayuga Co. Agricultural Society.

SELF-ACTING CHEESE PRESS.—It will be seen by an advertisement in this paper, that our agent at West Milton, Saratoga Co., has the patent-right of this press for several counties, and is prepared to furnish presses, or to dispose of the patent for certain districts. This press is a favorite one in some parts of the country, and is well worthy the attention of cheese-makers.

THE "DOUBLE ACTING ROTARY CHURN" is advertised in this number. We have received one of the churns, and will speak of its performances when we have had an opportunity to test it.

BLACK HAWK.—The advertisement of Messrs. HILL, in reference to this horse, will be found in our present number. He has always been held in high estimation by connoisseurs in horse-flesh; but the high prices readily commanded by his progeny, as they arrive at an age to show their superior properties, afford the best evidence of his great value.

MORSE'S GREY.—It will be seen by reference to the advertisement of this horse, that he is still at his old stand. His stock is well known and esteemed in this vicinity, as good roadsters and fast travelers.

IMPORTED HORSE LEOPARD.—A notice of this horse was given in this paper for February. A more full description will be found in our advertising columns for the present month.

BEANS AS FOOD FOR ANIMALS.—Chemical analysis demonstrates that beans and peas are rich in nitrogen, or nitrogenous compounds; hence it is inferred that they would form a valuable food for laboring animals—the nitrogen supplying the waste of muscular tissue. But some trials which have been made show that they are valuable for animals in other respects. Beans are excellent for fattening sheep, and peas are highly prized for fattening hogs. Beans are not usually relished by hogs; but we have heard of their being ground and the meal being mixed with potatoes and fed to them, with good results. Bean meal has also been given to cows. The writer was acquainted with a farmer in Maine, several years since, who was somewhat noted for the general excellence of his milch cows, and who made it a rule to feed his cows with about a quart of bean meal, each, for two or three weeks before and after calving. The cows appeared to be very fond of it, and the farmer thought it was the best food for the combined objects of imparting strength, and producing a good flow of milk that could be used. A writer in the *Mass*

Plowman, states that he has lately been feeding a milch cow with bean meal with good effects. We hope experiments will be made in such a manner as to test its value, compared with meal from Indian corn. Mere conjecture, without actual trial, is worth but little.

CAUTION.—L. E. WHITE.—The public are cautioned against paying L. E. WHITE for *The Cultivator*, as he has not been authorised to receive subscriptions for the last two years, and never paid for those he was authorised to receive the year previous.

DIFFERENT CROPS IN ALTERNATE ROWS.—J. G. CHADSEY, of Wickford, R. I., made an experiment last year in relation to the cultivation of onions and carrots in alternate rows. The result was, that a piece planted with onions, in rows one foot apart, produced 507 bushels per acre; and the piece planted with carrots and onions in alternate rows, at the same distances as on the other lot, gave 380 bushels of onions, and 774½ bushels of carrots per acre. The value of the crop on the first-mentioned lot, was \$202.80; manure and expense of cultivation, \$93.10; giving a nett profit of \$109.10 per acre. The piece planted with onions and carrots together, gave an aggregate value of \$306.80 per acre; manure and expense of cultivation, \$117.59; leaving a nett profit of \$189.21. Part of the onions were sold at fifty cents, and the remainder at forty cents per bushel. The carrots sold mostly in the field, at twenty cents per bushel. The advantage of cultivating the carrots and onions together, is thought to be owing to the more ready admission of the sun's rays. The onions are sown six weeks before the carrots, and they mature and are taken off before the carrots shade the ground—the latter making their greatest growth in the last half of September, and through October.

DISSOLVING BONES BY STEAM.—A statement has lately been made to the Highland Agricultural society, in relation to pulverising bones by steam. It was stated that bones of any size could be reduced to a soft mass by this agency alone. A small boiler with a steaming vessel connected with it, capable of standing a pressure of 25 or 30 pounds to the square inch, was all that was required. If the vessel was filled with bones, and subjected to the action of steam above the level of the boiler (as they will not dissolve if covered with water,) at 25 lbs. pressure for a few hours, they will become quite dissolved—thus saving all the expense of grinding, and the sulphuric acid commonly used, which amounted to double the price of the rough bones. All the bones were so much softened, that the largest pieces found could be easily crushed fine by pressure in the hand. Dr. Anderson, the chemist of the society, thought the steaming would be cheaper than grinding. Prof. Traill thought the steamed bones would be preferable to those dissolved with sulphuric acid, because when the acid was added to bones, there was a destruction, in part at least, of the animal matter. The gelatine, which was of itself a valuable manure, would be saved by the steaming process.

GOOD COWS.—The statements in regard to the cows which received the premiums at the last show of the Worcester county (Mass.) Ag. Society, showed the following results: JOSEPH A. REED's cow, which took the first premium, was said to have been a Devon, five years old; calved the 26th of April. From June 10th to 20th, her milk produced 20¾ pounds of butter; from September 10th to 20th, 15¾ pounds of butter. Feed, pasture. SAMUEL H. FLAGG's cow, which took the second premium, was of "native" breed. Calved May 15th. From June 10th to 20th, averaged sixteen quarts of milk per day, which yielded 22¾ pounds of butter; from September 10th to 20th, eleven quarts per day, which gave 14¾ pounds of butter. Feed, pasture only, in June; in September, hay at night, (pasture be-

ing dried up,) with two quarts wheat meal per day. S. B. WATSON's cow, which took the third premium, calved on the 21st of March. From June 10th to 20th, made 22 pounds of butter; from September 10th to 20th, 15 pounds of butter; from April 22d to September 23d, 195 pounds of butter. Kept with other cows in pasture, with no other feed. Neither breed nor age mentioned. SIMON CARPENTER's cow, which received the fourth premium, was half Holderness, half "native." Four years old. Calved in April last. From June 10th to 20th, made 16¼ pounds of butter; from September 10th to 20th, 14¾ pounds of butter.

The Society required that a statement should be made of the weight of butter produced in ten days from June 10th to 20th, and in ten days, from September 10th to 20th.

PROFITS OF POULTRY.—EBENEZER LINCOLN offered a statement last year, to the officers of the Worcester County, (Mass.) Agricultural Society, from which it appears that on the first of March, 1848, he had thirty-six fowls: that from the first of March to the twenty-third of September, these fowls produced 224½ doz. of eggs; of this number, the family used their supply—the number not known: 18½ dozen were used for incubation, from which 171 chickens were raised: the remainder of the eggs were sold for \$34.41, and a part of the chickens for \$13.48—making his cash receipts, \$49.89, besides the chickens on hand.

PREMIUM CROPS.—The Ontario, (N. Y.) County Agricultural Society, awarded premiums on crops grown in 1848, as follows: *Wheat*, first premium to JOHN RANKIN, 45½ bushels per acre; second premium, to JARED WILSON, 45 bushels per acre; third premium, 31½ bushels per acre. *Indian Corn*, first premium to URI BEACH, 103 bushels per acre; second premium to JOHN RANKIN, 92 bushels per acre; third premium to E. M. BRADLEY, 83 bushels per acre. *Barley*, first premium, to E. M. BRADLEY, 60 bushels per acre; second premium to S. B. DUDLEY, 48 bushels per acre; third premium M. ADAMS, 45 bushels per acre.

CURE OF SCAB IN SHEEP.—A writer who states that he has tried many receipts for the cure of this disease, says he has found none so effectual as the following:

4 oz. Corrosive sublimate.

¼ " Sal ammoniac.

2 " Powdered white arsenic.

½ lb. Tobacco, cut small and boiled in four or five gallons of water. All the other ingredients to be mixed with the decoction. The animal should be washed all over with the mixture, and it is said that a single application will generally effect a cure.

P. C. S., Tallmadge O., will please accept our thanks—M. E. M. Fitchville, O.: Shall be glad to receive the plans you speak of.

Prices of Agricultural Products.

New-York, April 22, 1849.

FLOUR—Genesee, per bbl., \$5.62½ to \$5.75.—Fancy brands, \$6.25 to \$6.75.

GRAIN—Wheat, per bush., Genesee, \$1.20—Ohio & Missouri, \$1. Rye, 57c. Barley, 62 to 65c. Oats, 34 to 35c. Corn, Northern, 55c.—Southern, 52 to 56c.

BUTTER—best, per lb., 18 to 20c.—western dairy, 13 to 15c.

CHEESE—per lb., 6½ to 7c.

BEEF—Mess, per bbl., \$11.25 to \$12.50—Prime, \$8 to \$8.50.

PORK—Mess, per bbl., \$10.37 to \$10.50—Prime, \$8.50 to \$8.56.

LARD—per lb., 6 to 6½c.—grease, 4½ to 5c.

HAMS—Smoked, per lb., 6 to 9c.

HEMP—American dew-rotted, per ton, \$155 to 160.

COTTON—Upland and Florida, per lb., 6½ to 7½.—New Orleans and Alabama, 6 to 8½c.

WOOL—(Boston prices.)

Prime or Saxon fleeces, per lb., 40 to 43c.

American full blood Merino, 30 to 38c.

half blood do., 31 to 33c.

one-fourth blood and common, 29 to 30c.

REMARKS.—There is a good home and eastern demand for flour, but nothing doing in the way of export. Pork and beef are in fair demand.

Palmer's Wheat Drill.

IT is an established fact that the drill culture is far superior to any other, and the only safeguard from drouth or "winter-killing."

It is also a fact that J. A. Holmes & Co., of Brockport, Monroe Co., N. Y., are manufacturing the best Wheat or Grain Drill in the known world, and at the lowest price. Every useful agricultural implement should be afforded at a rate that places it within the reach of every farmer.

To accomplish this, the subscribers have made an arrangement with the inventor, to manufacture on a large scale for the coming season.

PALMER'S WHEAT DRILL.

An article combining all the advantages of every other grain drill or planter, in a simple substantial form.

Confiding in the prospect of *Large Sales*, they have determined on selling them at a *very low profit*, making the price of the drill at least *twenty-five dollars cheaper* than any other, capable of performing as much.

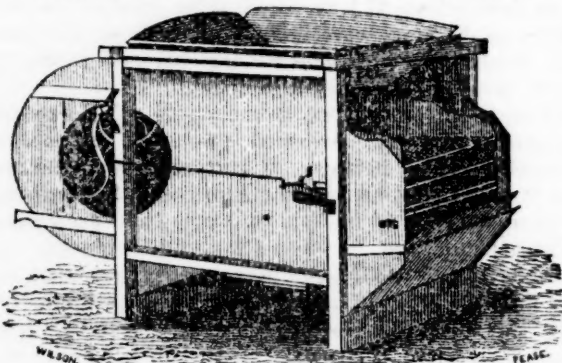
☞ We challenge the world to produce a drill equal to it. ☞

They are made of first rate materials, and in a strong, workman-like manner, and finished in superior style. Each drill is **WARRANTED**.

Orders addressed to J. A. HOLMES & CO., Brockport, N. Y., will meet with prompt attention. Orders should be sent in or delivered to our authorised agents as early as the month of July, to secure a machine this year.

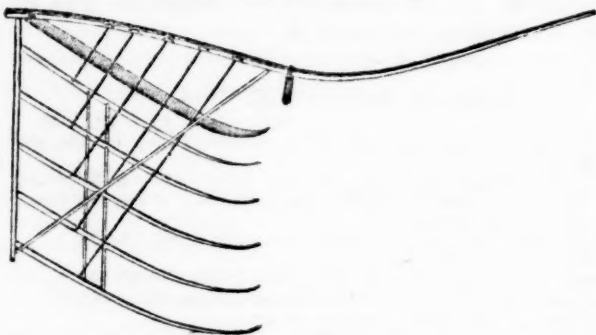
Brockport, May 1, 1849.—2t.

J. A. HOLMES & CO.

I. T. Grant & Co.'s**PATENT FAN MILLS AND CRADLES.**

WE continue to manufacture these celebrated Mills and Cradles. They have been awarded six first premiums at the New York State Fairs, and at the great American Institute in New York, and several County Fairs, always taking the first premium over all other mills. The manufacturers feel confident, therefore, in offering these mills to the public, that they are the best in use. During the year 1847 they were introduced into England, by Mr. Slocum, of Syracuse. They were very favorably noticed by the English papers; and from a communication of Mr. S.'s, published in the Transactions of the N. Y. State Ag. Society, for 1847, it will be seen that they were tried by several large farmers, and highly approved. One farmer, it is stated, set aside an almost new winnowing machine, for which he paid £18, (\$90) and used Grant's for cleaning a crop of 360 qrs. (2,700 bushels) of wheat, and several hundred bushels of mustard seed. We have lately made some valuable improvements in the article, though the price remains the same as before.

Our Cradles have taken the first premiums at two New York State Fairs, and are considered the best in use.



The great encouragement we have received from dealers and agriculturists, has induced us to greatly enlarge our business, and we hope by strict attention, to merit a further patronage.

Orders will be thankfully received, and receive prompt attention.

I. T. GRANT & CO.

Junction P. O., Rens. Co., 8 miles north of Troy.
May 1, 1849.—5t. com.

Agricultural Books,

Of all kinds, for sale at the office of The Cultivator.

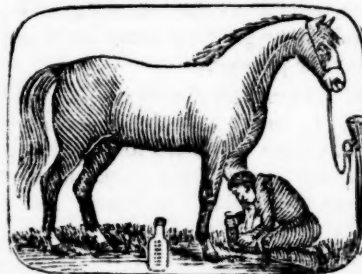
Important to the Farrier, Farmer & Stage Proprietor!

GEO. W. MERCHANT'S CELEBRATED GARGLING OIL.

Unparalleled in the history of Medicine, as the most remarkable External Application ever discovered for Horse's and Human flesh!

FACTS ARE STUBBORN THINGS!

☞ What has been done can be done again! ☞



IGNORANCE of facts and philosophy, however, start at the assertion that any one remedy can possess within itself the virtue of curing many diseases. Experience of more than fourty years, has nevertheless established the fact, that Merchant's celebrated Gargling Oil, or Universal Family Embrocation, WILL CURE most cases,

and relieve all such as Spavins, Sweeney, Ringbone, Windgalls, Poll Evil, Callous, Cracked Heels, Galls of all kinds, Fresh Wounds, Sprains, Bruises, Fistula, Sitfast, Strains, Lameness, Sand Cracks, Foundered Feet, Scratches or Grease, Mange, Rheumatism, Bites of Animals, External Poisons, Painful Nervous affections, Frost Bites, Biles, Corns, Whitlows, Burns and Scalds, Chilblains, Chapped Hands, Cramps, Contraction of the Muscles, Swellings, Weakness of the Joints, Caked Breasts, &c., &c.

The following is an extract from a letter dated Utica, April 27, 1846, to G. W. Merchant:

Your Gargling Oil is selling better and better every month. There is in this city a man who has the care of 193 horses, who has used several bottles, and says that it works like a charm, and is decidedly the best medicine he ever saw or heard of.

Signed

U. H. KELLOGG.

Get a pamphlet of the agent, and see what wonders are accomplished by the use of this medicine.

Sold by Druggists and Merchants in the United States and Canada. All orders addressed to the Sole Proprietor,

GEO. W. MERCHANT, Lockport, N. Y.

May 1, 1849.—1t.

Fruit and Forest Trees.

SHRUBBERY, Buckthorn and Osage Orange Plants, of one and two years' growth, Strawberry Plants, Grape vines, &c., &c., for sale at the nursery, corner Delaware turnpike and Morton St., Albany.

Orders left on the premises, or at H. L. EMERY'S Agricultural Warehouse, No. 369 and 371 Broadway, Albany, will meet with prompt attention.

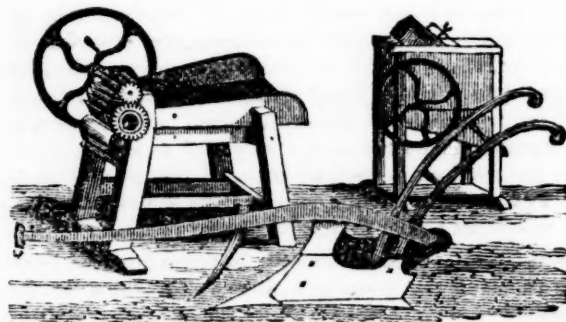
Albany, April 1, 1849.—2t.

Osage Orange Seed,

WARRANTED good, and sure to grow if managed according to the directions furnished to purchasers, for sale. Price \$25 per bushel, \$7 per peck, or \$1 per quart; Payment to accompany the orders. Packages can be sent by express during winter, via Cleveland, Buffalo, &c., or via Wheeling, Baltimore, &c., or via Cincinnati, to all places on the Ohio and Mississippi rivers.

M. B. BATEHAM.

Ohio Cultivator Office, Columbus O., April 1.—2t.

**John Mayher & Co.**

United States Agricultural Warehouse, 195 Front, one door south of Fulton Street, New-York City,

WHERE they have for sale over 200 different patterns and sizes of Plows, of the most approved kinds, and suitable for all kinds of soil, together with the most extensive assortment of Agricultural Implements ever offered for sale in the city of New York, which will be sold at lower prices than they can be obtained at any other establishment. Purchasers will do well to call and examine the stock before purchasing elsewhere. Among the plows advertised will be found J. Mayher & Co.'s celebrated and unequalled First Premium Eagle D Plow, without doubt the best and cheapest plow to be had in the United States.

N. B. Castings of all kinds made to order.

New-York, Oct. 1, 1848.—1t.

Anthony & Emerson's DOUBLE ACTING ROTARY CHURN.

THE attention of all Dairymen, and persons interested in good butter, is solicited to an examination of the merits of the above invention.

The proprietors feel confident that, upon investigation and trial, it will be pronounced the most practical and common sense Churn ever brought before a discriminating public. The abundant testimonials, the universal approbation, and the spontaneous acknowledgments of all who see the Churn in operation, or examine its principles, furnish ample proof of its merits.

Read the following Notices of the Press.

The operation of this churn before the Farmer's Club in Wilmington, Del., is thus related by Col. J. S. Skinner, editor of the *Plough, the L. om and the Anvil*:

Until dinner was announced, the chief attraction was Mr. Anthony's famous "Double Acting Rotary Churn," which Mr. Emerson had brought down from Philadelphia, that the members might have ocular demonstration of its miraculous performance.

Like Maelzel with his chess-player, Mr. Emerson exposed the interior, to show that there was no witch or witchcraft about it—and truly, the whole contrivance seemed to be as simple as a salt-box. Two gallons of fresh milk were thereupon poured into it, and every man pulled out his stopwatch to note its performance—six minutes being allowed. Odds in favor of time. Away went the churn, turning as light as a little, old grind-stone, in the country, worn down to the size of a breakfast-plate, and behold, at the end of five minutes, the operator took off the cover and exposed the butteraceous particles finely separated from the milk, and ready to be served up and submitted to another sense at the dinner table.

Rotary Churn.—Messrs. Anthony & Emerson are exhibiting a patent Double Acting Rotary Churn, in this city, by which excellent butter is produced in two minutes from sweet milk, a thing previously deemed impossible. It appears to be an excellent machine, and will save the producers of butter an immense quantity of labor. —*Philadelphia Ledger.*

We recommend to the examination of all interested in good living, the newly invented *Double Acting Rotary Churn*, by Messrs. Anthony & Emerson. One of its best recommendations is its *great simplicity*. It operates on a beautiful principle—the mechanical action of the air—which is mingled with the cream in such a manner, that a thorough separation of the particles takes place, preventing the cream from frothing on the surface, and doing its work with astonishing rapidity, and in the most thorough manner. —*Pennsylvania Inquirer.*

We always take pleasure in recommending to the public, all labor-saving and useful inventions. One of the best which we have seen for a long time, is Anthony & Emerson's Double Acting Rotary Churn. At the churning yesterday at 12 o'clock, good butter was made from sweet milk in three minutes. We understand that the proprietors are rapidly disposing of the rights for the different states, and it seems to afford an admirable opportunity for a profitable investment. —*North American and U. S. Gazette.*

Anthony & Emerson's Double Acting Rotary Churn, the advertisement of which will be found in another column, is an invention which has attracted a great deal of attention and commanded universal commendation for its simplicity, and the extraordinary rapidity with which it performs its work, producing butter from the milk, in about three minutes time. Those who examine it will be struck with amazement that anything so exceedingly simple should not have been thought of before. —*N. Y. Courier and Enquirer.*

Double Acting Rotary Churn.—This is one of those simple inventions which are calculated to be very useful, because they are truly labor-saving. We have seen butter made in three minutes from milk bought in our streets, which was not likely to be very pure. —*Daily Sun.*

Revolution in Churning.—We learn that Messrs. Anthony & Emerson, the fortunate inventors of the *Double Acting Rotary Churn*, advertised in this paper, have opened an office for the disposal of rights and churns, at 77 Fulton st., New York, where they are creating an extraordinary sensation among the dairymen and farmers of the interior, who flock to examine the invention, and who universally agree to its great superiority over any other Butter making affair now in existence. Did we not feel fully assured of the superiority of this great labor-saving invention, we should scarcely refer to it so frequently; but having observed it quite carefully, we heartily recommend it to our agricultural readers. —*American Cour.*

The public are invited to call and examine the machine, and see its utility tested. It combines the following valuable qualities:

1st. It produces more butter from the same amount of milk or cream, than the ordinary method, as it does its work in a more thorough and scientific manner.

2d. It is the cheapest, simplest and most convenient churn ever invented, embodying the true philosophical principles of butter-making.

3d. New milk after being churned, is sweet and suitable for family use.

4th. Instead of feeding the calf with milk directly from the cow—churned sweet milk will answer every purpose. By this process, the butter is all profit!

5th. It is a great labor-saving machine. By simply turning a crank, butter is produced from fresh milk in from three to six minutes, and from cream in less time. (It requires longer time to produce butter if the cream is cold. The best temperature is 65 degrees.)

6th. It acts upon philosophical principles.

The butter is produced by the introduction of the *Mechanical and Chemical Action of the Air*. By the revolution of the dasher, the air is forced between the globules of the cream upon the one side, and

the production of a vacuum on the other, sucks up the particles of cream by the cavities causing a breaking of the globules, and a separating of the fatty or butter particles of the cream from the butter-milk, or more fluid portions—producing more butter from the same amount of milk or cream than any other churn, for the simple reason that it does its work in a more thorough manner.

We offer it upon the following terms: If the Churn does not prove as recommended, it may be returned, and the money will be refunded.

We have constantly on hand, and for sale, five different sizes, prices \$3, \$1, \$5, \$6 and \$12, capable of churning at one time, 1½, 3½, 5½, 10 and 20 gallons of milk or cream. Also, churns of any size made to order.

Exclusive county rights to manufacture and sell in the States of New York and New Jersey, for sale at about the rate of one hundred dollars for each 10,000 inhabitants.

A churning takes place every day, at 12 o'clock, at our Warehouse, No. 2 John St., corner of Broadway, where every one interested is invited to call.

A discount of 25 per cent. is allowed to the trade.

All orders, postage paid, addressed to the subscriber, will be promptly attended to. T. DOUGLAS, Agent, May 1—It * No. 2 John St., Cor. of Broadway, New York.

Morgan Horse Black-Hawk.

THIS well-known and popular stallion will stand this season, at the stable of the subscribers; terms, \$15 the season, payable in cash, or a satisfactory note on demand with interest. For particulars in regard to pedigree and performances, see large bills, and previous volumes of *The Cultivator*. D. & D. E. HILL, Bridport, Vt., May 1, 1849.—It.

A Sultan from the English Stud.

Imported Thoroughbred Race Horse Leopard,

WILL be kept throughout the year, for the improvement of breed, at the stable of J. Lapham, in the Union, 5 miles northwest of Keeseville, except during the months of May and June. Beginning the first week in May, he will be at J. Lapham's from Monday until Friday; on Saturday, he will be at Keeseville. The succeeding week, he will be in Champlain Village on Wednesday and Thursday, and in like manner each alternate week in May and June.

THE LEOPARD is a dark brown, standing over 16 hands high, and weighed over 1100 lbs. last year. Being only 4 years old at the time he was shipped, and lame in consequence of treading upon a small round stone at the last race he ran, his lameness and the severity of the voyage impeded his growth; yet from the improvement he is making, it is confidently believed that he will attain to a weight of 1200 lbs. He was purchased of the Duke of Bedford for the reduced price of \$1250, on account of his having despaired of his ever recovering from the lameness, otherwise he would not have sold him for four times that amount. The lameness was confined to the cartilage of the ankle, which has subsequently become entirely sound, and free from defect or blemish.

THE LEOPARD

Has won, at different races, about \$10,000. He has no cross of common or impure blood since the date of the American Revolution. It is well known that the best English Roadsters and Hunters are produced by crossing common mares with full blood Racers, therefore, upon principles of judicious breeding, crosses with Morgan and Blackhawk mares, or Norman and French mares, will bring the best horses for all work. Persons wishing the service of the horse are requested to call and examine and satisfy themselves with regard to his peculiar merits.

PEDIGREE—Leopard was got by Liverpool out of Sneaker by Camel, (the sire of Touchstone in 1831, and Launcelot in 1840, both winners of the Ledger.) her dam by Selim (winner of the Ledger in 1811.) out of Hare, by Sweetbriar. Liverpool was got by Prime Minister out of Rosamel, bred by Mr. Van Sittart in 1813, got by Reubens, her dam Momentilla, by a brother of Repeater, (Diomed Emperor by Camel, by Whalebone.) out of Selim, the mare bred by Mr. Ewles in 1812, her dam Maiden by Sir Peter, (sire of the winners of the Ledger) by Phenomenon sire of Ambidexter, (winner of the Ledger in 1799) out of Matron by Florazel, (sire of Tartar in 1792 and Anilla in 1793, both winners of the Ledger.) out of Maiden by Matchum, sire of Haldondaise, winner of the Ledger in 1778. (See English Stud Book.)

CERTIFICATES.—I certify upon my honor that my stud horse Leopard is 6 y.s. old, was got by Liverpool out of Sneaker by Camel; was the property of his Grace the Duke of Bedford, and that I purchased the said horse of his Grace, for £250 Sterling.

LIONEL FITZGERALD, Cornet Queen's Light Dragoons.

I am convinced that the above statement is true in every particular.

THOMAS WALTER JONES, Captaincy Q. L. D.

PERFORMANCE.—The following is but a partial statement, being taken from memory, the calendar being in Montreal. Leopard won the Produce stakes, (Sweepstakes) of £500 on the New Market Heath, 4 miles, in June, 1846. Also the same year, Sweepstakes of £600 at Ascot Heath, 4 miles, besides various other matches, being at the time the property of the Duke of Bedford. Also ran for the Queen's plate at New Market, going 3 miles with 8 stone 10 lb. on his back (122 lbs.) in 5 minutes and 45 seconds. All of which is recorded in the racing calendar for 1846.

Odletown, Oct. 7, 1848. LIONEL FITZGERALD,

Cornet Queen's Light Dragoons.

TERMS—\$10 for a single service, \$2 50 for each repetition; \$20 the season, and \$25 for insurance; it being at the option of the man who tends to accept or reject individual animals. Accidents to mares will be at the risk of their owners. Mares from a distance will be pastured at J. Lapham's, and receive good care for a reasonable compensation. OLIVER K. LAPHAM & CO.,

Peru, N. Y., May 1, 1849.—It.

Proprietors.

Wendell's Mottled Bigarreau Cherry.*Described page 199, Am. Journal of Agriculture and Science.*

THE subscribers offer for sale this spring, trees of the above new and choice variety of Cherry so much sought after by the admirers of this choice fruit. Price \$1.

Also, their usual supply of

FRUIT TREES

viz: App'es, Plums, Pears, Peaches, Cherries, Apricots, Quinces, extra size. European Mountain Ash, and other Ornamental trees.

A liberal discount made to those who purchase in large quantities.

WILSON, THORBURN & TELLER,
April 1.—2t. Nurserymen, Albany.

Agricultural Warehouse and Seed Store,

Corner of Washington and Exchange Streets, Buffalo, N. Y.

WE have opened an establishment of the above kind in this city, and shall keep constantly on hand, both at wholesale and retail, one of the largest and best assortments of agricultural implements in the Union; and shall offer nothing for sale, that we do not previously test upon the farm. Our seeds are imported from one of the most reliable dealers in Europe. Clover and grass seed we shall be able to supply to Eastern dealers on the most liberal terms.

Manufacturers of farming implements are requested to send us at least a sample
T. C. PETERS & BRO.
Buffalo, Dec 1—6t.

The old Morgan Gifford,

THE highest blooded Morgan Stallion now remaining, will stand this season at the stable of F. A. Wier, in Wapole, N. H.

Terms \$25, \$5 of which to be paid at the time of service, and the remaining \$20 if the mare proves in foal.

Pasturage furnished as usual.

FRED. A. WIER, Agent for the Proprietors.
March 1, 1849.—5t.*

The Genuine Morgan Horse

GENERAL GIFFORD, will stand the ensuing season, on Mondays and Tuesdays, at the stable of Geo. A. Mason, 2½ miles north-east of Jordan; Wednesdays, Thursdays and Fridays at the stable of D. A. Munro, in Camillus; on Saturdays, at the stable of John C. Munro, in Bellisle.

Terms, \$10 to insure. Mares that are not placed directly in charge of the subscribers, must be regularly returned through the season. All persons parting with mares before the usual time of foaling, will be held for the \$10. Pasturage furnished by either of the subscribers, at 3 shillings per week. Accidents and escapes at the risk of the owners.

We can confidently assert that in size, build and style of action, General Gifford more nearly resembles the original Morgan Horse than any other stallion, except his sire, the Gifford Morgan.

The Morgans, as a breed, are so universally known and esteemed, that we deem it unnecessary to repeat their merits.

General Gifford was got by the Gifford Morgan, his dam a Morgan mare. A full description of the origin of the Morgans, and the pedigree of Gifford Morgan, may be found in the Cultivator for 1846, p. 19.

MUNRO & MASON.

April 1, 1849.—3t.

The Imported Horse Consternation

WAS bred by Mathew Hornsey, Esq., of Stitenham, Yorkshire, England, in the year 1811. He was imported by C. T. Abbot, Esq., in the year 1845. He is now owned by J. B. Burnet, Esq., of Syracuse, N. Y., and will serve a limited number of mares the ensuing season, at his own stables, near the village of Geddes, two miles west of Syracuse. The very best pastures, with plenty of water and the most secure fences will be provided for mares sent from a distance, at two shillings and six pence a week. No mare taken except at the risk of the owner.

Consternation is of a beautiful, unfading dapple brown color—stands 15 hands and 3 inches high, and is remarkable for vigor of constitution, uncommon development of bone and muscle, and an intelligent kind docile position. He is compact and short-legged, yet of a rangy and majestic figure. His chest and flank are remarkably full and deep. His action is easy and graceful, yet proud and commanding.

But what is more important perhaps than either, he is entirely thorough-bred. There is no taint of mongrel stock in his long line of ancestry. Indeed there is no horse living, with a more distinguished or genuine pedigree.

His ancestors were of unusual size and strength, and every one of them of good disposition and free from blemishes. His pedigree is briefly as follows, viz:

By Confederate—dam Curiosity, by Figaro—her dam by Waxy; Confederate was bred by Earl Fitz William, got by Comus—by Cervantes, by Sir Peter, by High Flyer, by King Herod, by Flying Childers. Figaro was got by Hap Hazard, by Sir Peter, out of Mrs. Harvey, by English Eclipse, &c., &c., &c.

This pedigree is in every particular true and genuine, and can be abundantly established by reference to certificates and volumes of the Stud Book in the possession of the subscriber.

As to the character of Consternation's stock, reference is offered to Ira Hitchcock, Oneida Castle; Henry Rhodes, Trenton; A. Ford or John Best, Rome, and to farmers generally in that vicinity.

Terms \$5 in advance, and \$5 additional if the mare is got in foal.
April 1.—3t. J. B. BURNET.

To Nurserymen, Orchardists and Gardeners.

THE subscriber offers for sale at his nurseries, Plymouth, Mass., the following stocks, suitable for budding in the summer, and grafting in the spring: Pear, Quince, Cherry, Plum, Apple, Dwarf do (Paradise,) Dwarf Cherry, (Mahaleb.) Also, the following ornamental stocks, 2 to 4 ft. and stout: Mountain Ash, Hawthorn Ash, Elm, Spanish Chestnut, Norway Maple, Sweet Briar, Lime, Larch, Scotch fir, (2 ft.) Silver fir, (1 ft.) Norway fir, (1 ft.) Arbor Vitæ, (15 in.) Balsam fir, (6 in.) Cedar of Lebanon, Araucaria imbricata, Red Cedar, Deodar Cedar, Chinese arbor vitæ, Lecombe oak, Scarlet oak, Althæas, Double hawthorn, (6 ft.) Copper leaved Fern leaved and Purple Beeches, Japan Pear, (white and crimson,) Deutzia Scabra, Spiræa Lindleyana, Chas. Xth, and other lilacs, Virgilia Lutea; Roses in great variety; Honeysuckles, Wistaria Sinensis, and other climbers, Clematis flammula, azurea and Sieboldii, &c., &c., &c. 50 Select Pears, standard and dwarf, fine trees 2 to 4 years from bud, and well branched, including the very best sorts. Red Antwerp, Fastolf, Franconia and River's new large fruited monthly raspberries. Cherry (new,) May's Victoria (new,) Knight's Large Red, White Crystal, and other currants. Gooseberries, Isabella, Catawba, and Black Hamburg grapes. Also, in pots, Verbenas in 30 select varieties, including Gem, Othello, Suzette, Eximia, Susanna, Exquisite, Eclipse, &c. Dahlias, including the new fancy sorts.

Descriptive priced lists sent to post paid applicants.

Feb. 1—4t.

B. M. WATSON.

Short-Horns at Auction.

THE subscriber being about disposing of 50 acres of his farm, for public purposes, will offer at public sale 30 head of Short-Horn Durham Cattle, (being about one-half of his present herd,) at his farm, 2½ miles from this city, on the 13th day of June next, at 11 o'clock in the forenoon, consisting of yearling, two year old and three year old heifers and cows, and 11 young bulls, from 10 months to 2½ years old. Great care has been observed and considerable expense incurred, in selecting and breeding this stock with reference to purity of blood and dairy qualities. The awards of the New York State Ag. Society, and the N. Y. American Institute, attest the estimation in which it is held, wherever it has been exhibited for competition. About eight head of the above cattle, are part of a purchase made last May, of E. P. Prentice, Esq., of Albany, embracing all the Short Horns of that gentleman, and were the product of the four selected cows he retained at his public sale, and possessed much of the blood of the herd of Mr. Whittaker, of England, from whom Mr. P. made importations of stock. The other portion of the young stock inherit much of the blood of the herd of T. Bates, Esq. of Yorkshire, Eng. from whom my importations have been made, being one and two crosses of the imported bull Duke of Wellington, and the premium bull Meteor. All the heifers of suitable age, are or will be in calf by these bulls.

For the information of Southern gentlemen, who may be desirous of introducing Durham stock in that region, and who may entertain an opinion, that that climate is not congenial to their successful propagation there, I submit the following extract of a letter I received from A. G. Sumner, Esq., editor of the South Carolinian, dated Columbia, January 25, 1849:

"The bull you sold Col. Hampton, of this State, gives him great satisfaction; he is a fine animal, and I only wish you could see some 20 of his get, now in his yard. They are the most superb yearlings ever bred in the South, and your stock will not suffer from him." The pedigrees of the animals will be issued and circulated a month previous to day of sale. A liberal credit will be given—say 6 to 12 and 18 months, if desired. The particulars will be given in the pedigree list.

GEO. VAIL.

Troy, April 1, 1849.—3t.

**Agricultural Ware House,**

193 Front Street, New York.

THE subscriber, manufacturer and dealer in Agricultural Implements, offers for sale a large assortment of Plows, embracing over 200 different sizes and patterns, among them the superior Premium Plow, which received the highest premium of the American Institute in 1848, and of the great State Fair in 1847.

This Plow has no equal for lightness of draft, and for all purposes, is recommended with full confidence as being the best in use.

He has also the Centre Draft and Eagle Plows, which will be sold at the lowest rates.

Also, Cultivators, Straw Cutters, Corn Shellers, Fanning Mills, Grain Cradles, Corn and Cob Mills, Portable Grist Mills, Horse Powers, Threshing Machines, and a general assortment of Farming and Gardening Implements, all of which will be sold at extremely low prices.

Brass and Iron Wire Cloth Sieves, Screens, &c.

Bone Dust and Guano.

JOHN MOORE,

April 1.—2t.

193 Front street, New York.

Portable Self-Acting Cheese Press.*Patented August, 1847, by Chester Stone.*

THE most durable, simple, convenient, and economical press known. The weight of the cheese governs the pressure, or it may be graduated as desired. The principle is admirably adapted to packing flour into barrels and other uses. It acts on a double lever purchase, the article pressed being the *power*; or in other words "The cheese presses itself." Its weight is 70 to 100 lbs., occupies but little room, moved on castors or small wheels, and is sold at only \$7 to \$10, according to size. Already in extensive use in the western part of the State, and only need to be seen to be approved. For presses or exclusive rights to manufacture and sell them in any parts of the counties of Saratoga, Washington, Rensselaer or Columbia, apply to **H. VAN OSTRAND,** March 1, 1849.—*tf.* West Milton, Saratoga Co., N. Y.

Farm for Sale.

THE subscriber will sell his farm of 300 acres, situate near the centre of the town of Hillsdale, in the county of Columbia, known as the

MCKINSTRY PLACE,

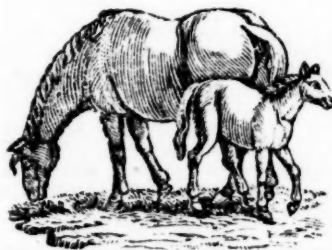
Having been possessed by that family about a century, lying adjacent or contiguous to the route of the Harlem Railroad, and upon which there are 2 good and convenient dwelling houses, one a recently built cottage, and barns, sheds, lofts, and numerous out houses, two wells of pure soft water of a superior quality, excellent orchards of grafted fruit, fine stone wall fences, some first rate fields for any kind of grain, about 45 acres of meadow land, and about 80 acres of wood land, well watered by springs; three small streams run through it, the head waters of the Roeliff Jansen's Kill or Creek rendering it a desirable farm for grazing, and valuable to practical farmers for other purposes of husbandry. It is capable of being divided into two good farms. Title made unquestionable by the undersigned, with the aid and assent of Judge Augustus Tremain, who now resides on the premises; land now worked and occupied by Mr. James Darrow. The farm is now well stocked with Devonshire cattle, and a choice flock of Saxon sheep, which, together with the farming utensils, will go with the old Homestead, if the purchaser wishes.

JUSTUS MCKINSTRY.

If desired, one-third or one half of the purchase money can remain on bond and mortgage for a term of years.
Hudson, April 1.—*2t.**

Important to the Public.**HORSE AND CATTLE MEDICINES.**

Don't permit your Horses or Cattle to die, when the means of cure are within the reach of all!



THE undersigned has spent several years in the study of Veterinary practice in "London and Edinburgh," he has also availed himself of the researches of Liebig, and other celebrated men, who have contributed so much towards a judicious treatment of animals. The principles of our practice consist in the rejection of general bleeding, and the total rejection of all medicines that experience has shown to be of a dangerous tendency. These remedies act in harmony with the vital principle, and when given according to the directions which accompany each article, they are capable of exciting and increasing the natural functions, without diminishing or destroying their power, hence are safe in the hands of every one.

G. H. DADD, M. D.**A LIST OF HORSE AND CATTLE MEDICINES.**

Physic balls, 75c. per box.
Alterative ball, 75 c. do.
" powders for bad condition, 75c. per package.
Heave powder for diseases of the lungs, 75c. do.
Urine powder for " " kidneys, 75c. do.
Tonic powder for bad condition of glanders, 75c. do.
Cordial drink for inflammation of bowels, 75 c. per bottle.
Liquid blister, 75c. per bottle.
Ointment for promoting the growth of hair, 50c. per pot.
Healing balsam for wounds and saddle-galls, 75c. per bottle.
Wash for inflamed eyes, 50c. per bottle.
Ointment for mange, scratches, old sores, &c. 50c. per bottle.
Embrocation for sore throat, 75c. per bottle.
Hoof ointment for sand crack, brittle hoof, &c., 50c. per bottle.
Lorse Liniment, the most celebrated article known in England for lameness of every description, 75c. and \$1 per bottle.
Distemper powder, for red water, \$1 per bottle.
Worm powders, for the removal of worms from the intestinal canal, 75c. per package.

For sale by **STIMPSON & REED,** 26 Merchant's Row; also at **DADD'S HORSE AND CATTLE MEDICINE DEPOT,** Nos. 1 and 2 Haymarket Square, Boston.

Pamphlets describing the diseases for which these remedies are used, can be had gratis.

Numerous Certificates are in possession of the Proprietors, of cures performed by the above medicines. Feb. 1.—*3t.*

A Book for Everybody.**COLE'S AMERICAN FRUIT BOOK.**

S. W. COLE, Esq., Author of the popular work, entitled *The American Veterinarian*, of which 22,000 copies have already been published, has, after years of patient labor and close investigation, completed his great work, entitled

COLE'S AMERICAN FRUIT BOOK:

A work which we believe is destined to have a more widely extended circulation than any similar work, ever before offered to the American public. We believe so for the following reasons.

FIRST—It is a mature work and a practical one, one upon which Mr. Cole has spent many years of study and close examination, and knowing the wants of the community has met those wants, in a plain, concise and familiar manner, avoiding technicalities, and scientific specifications and definitions, useful only to the few, he has made a work intelligible to all. It will be emphatically, a book for **THE PEOPLE.**

SECONDLY—It will have an unprecedented sale on account of its cheapness. It makes a volume of 288 closely printed pages, illustrated with nearly 200 beautifully executed engravings, by Brown, and is sold for 50 cents, firmly bound in leather, and 62½ cents in Fancy Cloth, with gilt backs. It contains full directions for Raising, Propagating and Managing Fruit Trees, Shrubs and Plants, with a description of the best varieties of FRUIT, embracing several new and valuable kinds; embellished with Engravings, and Outlines of FRUIT TREES, and various other designs. Emphatically, a

BOOK FOR EVERYBODY,

As well for the man who eats Fruit as for him who raises it.

This valuable work is just from the press, and is now for sale at our counter, and will be offered for sale by our regular agents throughout the country.

JOHN P. JEWETT, Publisher, 23 Cornhill, BOSTON.April 1.—*2t.***Chemical Manure**

Manufactured by "the George Bommer New-York Manure Co."

This manure is made chiefly of Fecal Matter from the sinks, in which is mixed a small portion of substances that are of themselves, powerful agents of vegetation, and possess the virtue to fix and retain the ammoniacal gas of the matter.

The great desideratum of the agriculturist has always been, to find out some process by which excrements might be solidified quickly, and all their fertilizing properties so strongly retained, that the manure may dissolve slowly and in proportion to the requirements of the plants, and therefore produce its effects for a time equal to that of farm manure.

This process was at length discovered by the French Chemists, and is now carried out with complete success in more than sixty of the large cities of France, where such manure factories are in full operation.

The "G. B. N. Y. M. C." has established a Factory on an extensive scale near the city of New York, in which they manufacture this kind of manure, and as the fecal matter can be obtained in this country at less expense than in France, the manure will not only be made stronger, but will be sold at a price less than in the French cities, this price being so established as to afford only the reasonable remuneration to which we are honestly entitled, the more so, as its manufacture is not of the most agreeable kind, and withal, troublesome and laborious.

The manufacturing department is under the special charge of **GEORGE BOMMER, Esq.,** who has a perfect scientific and practical knowledge of manure matters generally; and the company has established a standard for the strength of its manure, from which it is intended not to deviate, so that its customers may at all times be furnished with an article really worth what they pay for it.

Our manure is an inodorous grain, and as the substances from which it is made contain of themselves all the elements necessary to the fertilization of the soil and growth of plants, it is extremely well adapted to such purposes.

To manure an acre highly, it requires 12 to 15 barrels, or 36 to 45 bushels spread broadcast. Applied in hills, half of the quantity will suffice. Its application is simple and easy, and printed instructions for its use will accompany each parcel sent to order.

We desire it to be remembered, that our manure has no similarity to another known under the name of "poudrette," although the principal component of ours (the fecal matter) is the same as that which is used in the poudrette, in a much less proportion; our auxiliary substances, as well as our manufacturing processes are altogether of a different nature and kind.

It belongs not to us to eulogise further, the quality of our manure; what we desire at present is, to call upon the members of the agricultural community, to try it! and we have reason to assure them, that they will find it the most profitable manure they have ever used.

PRICES, TAKEN AT THE FACTORY:

37½ cents per bushel, without package;
50 cents per bushel, packed in Barrels, or
\$1.50 per Barrel, package included.

Orders addressed to the above Company, at their office, 72 Greenwich St., New-York, will be promptly attended to.

By order of the Board of Trustees,

New-York, Jan., 1849.—*tf***GEO. BOMMER, Director.**

The factory will be in full operation early in the spring, and manure can be had in April next, and at any time afterwards.

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NOW IN THE PRESS,

TO BE PUBLISHED BEFORE THE CLOSE OF THE MONTH,
THE AMERICAN FRUIT CULTURIST,
 BY J. J. THOMAS.

☞ The publication of this work has been delayed by causes beyond the control of the author and publisher. It may yet be some weeks before it will be issued.

Five Hundred Tons of Peruvian Guano.

FRESH from the Chinche Islands, for sale in lots to suit purchasers. Farmers will do well to be on their guard, of whom they purchase guano, as much is sold under the name of Peruvian which is spurious, and almost entirely worthless. To avoid imposition, each bag containing Genuine Peruvian Guano, will have the brand of A. B. Allen & Co., Agricultural Warehouse, 191 Water Street, New York.

Also Bone dust of superior quality, at 40, 50, and 55 cents per bushel. Poudrette, Plaster of Paris, Lime, and Patagonian Guano.

A. B. ALLEN & CO.
 May 1.—1t. 189 & 191 Water street, New York.

Field and Garden Seeds.

A FULL and complete assortment of Field and Garden Seeds, warranted fresh and true of their kind.

A. B. ALLEN & CO.,
 189 & 191 Water street, New York.

Genuine Eagle Plows.

AS many spurious Plows from this city and elsewhere, are sold under the name of "Eagle," Farmers and Dealers are cautioned if they wish to obtain the *genuine* EAGLE PLOW, that they will always find "Ruggles, Nourse and Mason, Boston and Worcester," and "A. B. Allen & Co., New York," branded on the beam.

The subscribers being sole agents in New-York, for the above Plows, offer them for sale at the manufacturer's prices. Also, those of Minor, Horton & Co., and many others of the best and most approved kinds, making the largest and finest assortment to be found in the United States.

Other Agricultural and Horticultural Implements of all kinds for sale.

A. B. ALLEN & CO.,
 May 1.—1t. 189 & 191 Water street, New York.

Morse's Grey.

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Journal of Rural Art and Rural Taste.

EDITED BY A. J. DOWNING,

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